

VOL. XL

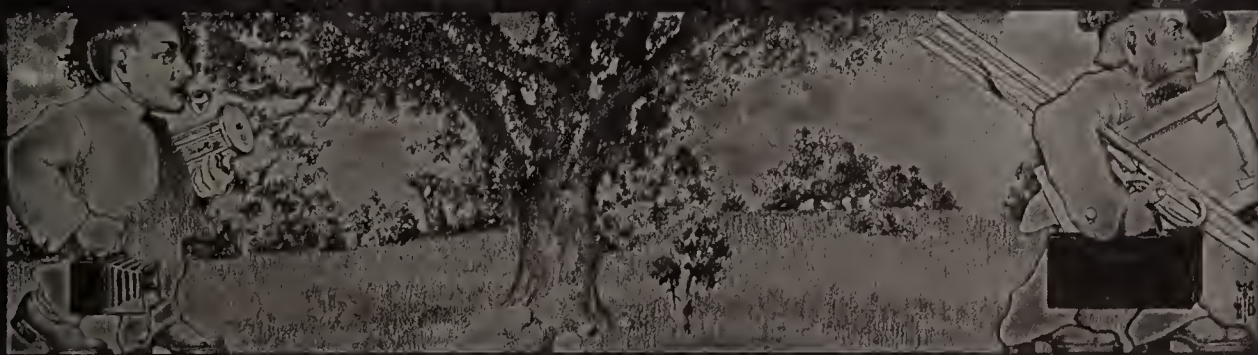
One Dollar per Annum

AUGUST, 1908

No. 8

Single Copies, 10 Cents

The Photographic Times



An Independent Illustrated Monthly Magazine Devoted to
The Interests of Pictorial and Scientific Photography.
THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION.
39 UNION SQUARE. NEW YORK CITY

Monthly Photographic Competitions for 1908

PRIZES will be awarded as follows: First prize, \$10.00; second prize, \$5.00; and three honorable mention awards of a year's subscription to "The Photographic Times."

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A limited number of prints will be criticized each month in addition to those winning awards. Such prints should be marked "*May be criticized.*" We cannot criticize prints by mail.

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The Photographic Times Publishing Association

39 Union Square, New York City

The Photographic Times

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DATE OF PUBLICATION the tenth of each month.

SUBSCRIPTION RATES one dollar a year, payable in advance. Foreign Postage 50 cents, Canadian postage 25 cents. Single copies 10 cents. Subscriptions to the THE PHOTOGRAPHIC TIMES received by all dealers in photographic materials in this and foreign countries, also the American News Co. and all its branches.

POSTAGE IS PREPAID by the publishers for all subscriptions in the United States, Hawaiian Islands, Philippine Islands, Guam, Porto Rico, Tutuila, Samoa, Shanghai, Canal Zone, Cuba and Mexico. For all other countries in the Postal Union, except Canada, add 50 cents for postage. Canadian postage 25 cents.

CHANGE OF ADDRESS.—When a change of address is ordered, both the new and old addresses must be given. The notice should be sent one week before the change is to take effect.

DISCONTINUANCES.—If a subscriber wishes his copy of the magazine continued at the expiration of his subscription, notice to that effect should be sent. Otherwise it is assumed that a discontinuance of the subscription is desired.

HOW TO REMIT.—Remittances should be sent by Draft on New York, Express Order, or Money-Order, payable to order of THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION. Cash should be sent in Registered Letter.

CONTRIBUTIONS.—All literary contributions, correspondence, "Queries," etc., should be addressed to THE EDITOR; all advertising matter to the Advertising Manager.

LETTERS should be addressed:

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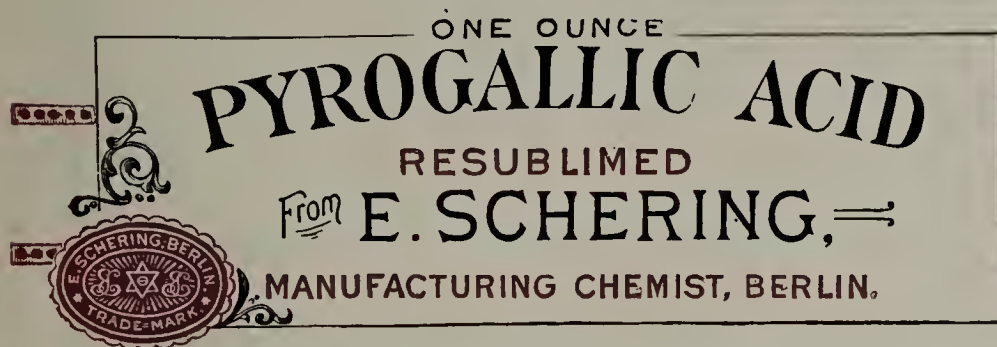
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PUBLISHERS' ANNOUNCEMENT

Change of Price

OWING to the increased cost of paper and all that goes to enter into the making of our publication, we are compelled to raise the price of THE PHOTOGRAPHIC TIMES.

On October 1st, 1908, the Subscription price will be \$1.50 a year. Single copies 15 Cents. Foreign subscriptions \$2.00 per annum.     


Subscriptions sent before October 1st, will be entered for any period at the old price.

In making this change we invite the co-operation of our readers to the extent of suggesting how the magazine may be improved to make it most helpful, interesting, and instructive.

The Photographic Times



THE CUP THAT CHEERS

Guido Rey. 

The Photographic Times

VOLUME XL

AUGUST 1908

NUMBER 8

PHOTOGRAPHY IN THE SCHOOL.

BY LEWIS W. HINE.

Ethical Culture School, New York City.

[Photographs by pupils and by the author. All rights reserved.]

DESPITE a brief career of less than a century, the camera is established as an indispensable adjunct to modern society. Witness its services in the adornment of the home, where reproductions bring in the distant world of history, geography, and art,—in current literature, where the pictorial appeal in books, magazines, and newspapers is made so effective by the inexpensive and rapid methods of reproduction afforded by photography. The manufacturer finds it just as essential in his calling. The scientist, be he astronomer or bacteriologist, bases many of his investigations upon the records made by this new servant. Furthermore, there are those, numbering not a few, who are ready and eager to add photography to the fine arts.

The discussion thus far, however, has been centered upon the adult,—it has been the question of just what culture photography has to offer this man or that woman. It would seem, then, that the child is to be left out of all these good things,—but, if this new art is such an inspiration and help to the grown-ups, why

not to those in the formative period of life? It is to the conservative educational world, then, that we refer this important question, “Why are we not using the camera to help in the education of our children?” and it is timely, for a similar query has been coming, of late, from various parts of our country. Nor is the responsibility to be shaken off by bestowing upon the boy or girl a Brownie camera and remaining content to foot the bills that result from its use or misuse.

For some time, in the Ethical Culture School, the idea has been growing that there are educational possibilities in the right kind of camera work which are not brought out by the desultory, snapshot methods pursued by the average boy or girl. Even the very young children, in the kindergarten and the lower grades, begin to use the elements of these processes in the blue-prints they make of leaves, flowers, and grains, the records of which they wish to preserve.

As an illustration of what we have done in the use of the camera with pupils of the Elementary School, I will cite a recent case, a section of the sixth grade,



THE "COMMERCE CAMERA CLUB" AT WORK.

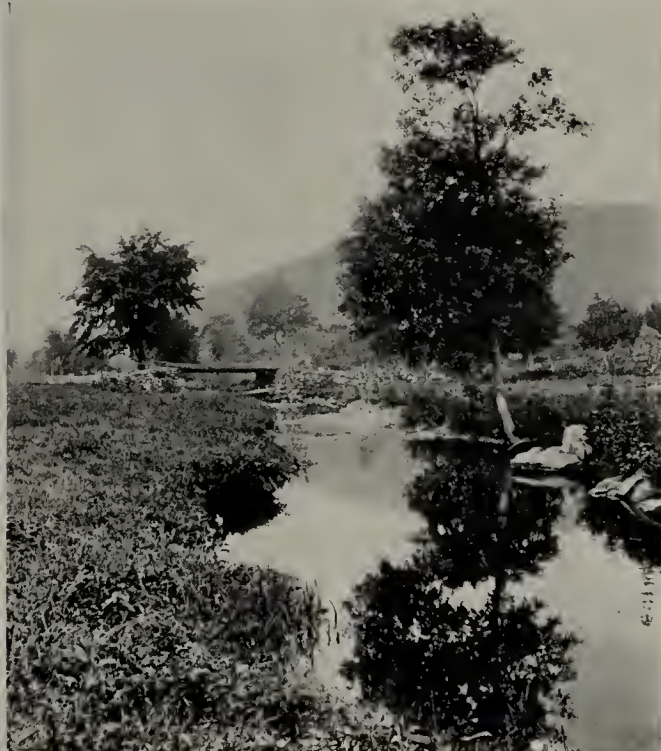
Photographed by a member of the Camera Class.

composed of children about eleven years of age. While planning an excursion, which was to take the class by ferry across New York bay and to a great freight terminal in South Brooklyn, the idea occurred that it might be a help to have the children make a more systematic attempt than they had ever done before to get snapshot records of what they saw. These records were, of course, to be pertinent to their study of commerce, in

which they were engaged in the geography class. The "Commerce Camera Club" was organized for the occasion. A little time was spent, in addition to the usual preparation for the trip, to make sure each one knew the ins and outs of his or her camera and could use it readily. Beside the extra interest that the cameras contributed to the trip, they were of great value in concentrating the attention of the children upon the matters



SNAP SHOTS TAKEN BY THE PUPILS.



WORK OF MEMBERS OF THE CAMERA CLASS.

which they were studying. The importance of having some strong, controlling idea kept in the foreground will be seen when one considers the distractions of such a journey, the thousands of irrelevant matters constantly passing before the children. Ten of the fourteen children had cameras, and a number of prints resulted from the trip and served on succeeding days to keep up the interest in organizing a permanent record from the ideas gained that day. This made a very effective review of the places and activities seen on the excursion, the

glimpses of which had necessarily been rapidly made in many instances.

The pupil of High School age is ready to build upon previous camera experiences and, with the interests of this impressionable period, to develop an appreciation of art that might, otherwise, never have been awakened. The Camera Club has been for several years a clearing-house for photographic experiences,—giving opportunity for an exchange of ideas gained through practical work and reading, a place to learn how to develop and print, and, having learned, a chance

to help the rest in similar ways. Trips, taken as a club or in groups, bring results to all. This organization certainly has a place in every modern school.

The Camera Class has a different function. This was the outcome of a need for more serious work than the Club could do. The course consists of definite laboratory work, the results of which

photography is a question of art. As the study progresses and the pupils realize that a real photograph is not a "lucky hit," but the result of intelligent, patient effort, they are given instruction in the choice of subject and in the principles of composition. This is done by means of a study of good examples of art, photographs and paintings, even to the length



WORK DONE ON A COMMERCIAL BASIS. "PRODUCTIVE LABOR."

warrant the granting of credit to the pupil on the same basis with art and manual work. During the year, about one hundred hours are devoted to class work in the darkroom and in the field, to say nothing of the time voluntarily spent outside of school hours. The fundamental aim of the course is to help the pupils to a better appreciation of good photography and how to attain it,—in short, to give the artist's point of view, for, in the last analysis, good

of making sketches, from the works of these masters, for the purpose of impressing the points studied. Then follows practice in trimming and mounting the photographs they have made. Some times, in order to help them select the salient features in a picture and to realize something of the amount of study that is required to obtain good composition, a masterpiece will be taken as a model. Then an effort is made to reproduce its essence by means of a study of present-



A TENEMENT MADONNA. A STUDY IN COMPOSITION.

day conditions. The "Tenement Madonna" (see illustration) is a study made by the instructor to represent maternity among the poor, following the conception used by Raphael in his "Madonna of the Chair." In every way possible, the beautiful and picturesque in the commonplace are brought out and the study is helped by means of visits to some of the photograph and art exhibitions. Reading in the current photo literature is encouraged as a means of getting the new ideas on process and product. Then there are the field trips into the country, the parks, and to points, which are so abundant about the city, of interest industrially and historically.

One of the chief reasons for endeavoring thus to present the study of art through the camera is that many an adult realizes, too late, that a life interest in art might have been possessed had such

a medium as the camera presented itself. Unfortunately, during the school period, the brush and the pencil had made no appeal and could not be mastered. As a result, that side of life is to these persons of small moment, even though they may realize their deficiency.

Naturally, the art side of photography is of little value without the technical ability to manipulate camera and developer. This is of first importance, for, before real artistic results can be attained, the control of the mechanism of the camera and the processes of developing and printing must become automatic, that they may respond readily to the will of the worker. This requires a long apprenticeship, which, when dutifully served, evolves a quality of accuracy in judgment which is certainly as valuable as that brought out by tool work. Therefore, we have found it practicable to

substitute photography for shop work when the camera is the best medium of expression for the individuals in question. These minds seem to respond better to the process work of developing and printing, which involves more thought and less merely mechanical skill than the operations of the tool work.

When sufficient skill has been gained, the pupils are given work on a commercial basis,—productive labor, we call it. Teachers and pupils send films and plates to this department to be developed and printed. This puts the matter upon a practical and responsible foundation,—the pupils are held up to the standard of first-class commercial work, and for it receive market prices. It is not long before they are receiving orders from friends and acquaintances. One of the boys, out with his camera recently, was hailed by a man exercising his horse on the speedway. An appointment was made, and after several trials a successful photograph was obtained. The boy cleared several dollars from the prints that were ordered, beside having the valuable experience of being thrown upon his own resources in a business transaction. By means of these orders, some pupils pay all of their photographic expenses, and, in several cases, have earned enough to buy a new camera. They also lend their assistance to the school in the photographing of school activities. A member of the Camera Class was called upon to accompany the sixth grade on the excursion to investigate commerce in the port of New York, mentioned in a previous paragraph. The school now has some valuable records of the trip and the boy has the added experience.

In brief, our reasons for believing in the manual value of photography are that we feel the manual instincts of our boys and girls are not to be confined to the few

recognized channels of shop-work, sewing, basketry, and cooking. The intense interest this boy or that girl shows in the camera, may be due to the fact that he or she has found a medium that is in accord with a natural bent. We no longer require that a boy shall prepare to be a doctor or a minister, regardless of ability in these directions. Why, then, say to him that in order to profit by the manual work of the school he must conform to the few lines that have been laid out by educational authorities?

The city child needs to have good, wholesome hobbies of this kind. First, because they are involved in the actual doing of things. They draw upon the resources of the child and help him to realize what he can do, meanwhile helping to direct his countless impulses and activities. Moreover, wholesome avocational interests are provided, which, unfortunately, are so often shut out by the city environment, but may be replaced by this method of giving employment to leisure hours, enjoyment to friends, and opportunities to turn an honest penny. Then, the sharpened vision gives, throughout life, a greater appreciation of the beauties to be found on every hand. Finally, in many instances, a start is made that will undoubtedly give direction to the choice of life work.

The use of photography in the school is in its infancy. Many lines of connection with other studies are possible. Its social effects are manifold. All we have done, thus far, is to demonstrate that here is an opportunity to make our school work more effective by giving one more channel in accord with the bent of the individual pupil. There is great need of more light upon this question of the particular value of photography in education. It is a question full of possibilities. The answer may be slow but it is coming.

ADVANCED "GETTING RESULTS."

BY C. H. CLAUDY.



YEAR ago I write a series of stories on "Getting Results" which were more or less favorably received by those beginners who had waded through a sea of literature which told theory at the expense of facts. Some of these readers have been kind enough to ask for a continuance of the series, taking up photographic work at the point the average photographer might be expected to be after a year's experience.

It should not need any explanation on my part—this is a rather difficult thing to do. Whereas one can start at the beginning and know that one's auditors cannot know less than nothing, one cannot start in after a year and say: "Just here my reader's knowledge ends and my instruction must begin." For Jones may have passed far beyond the ranks of a beginner to a full-fledged, hard-studying, and successful pictorialist, while Smith still lingers in the ranks of those who always wonder what exposure to give.

But one has to make a start somewhere, so let us suppose an average degree of knowledge of a year's work, in these mythical average amateurs and begin with tramping around the country with an outfit, and a review of what we know.

We come to a beautiful view in the woods. The trees are a dark lusterless green, which makes a magnificent color contrast to sensitive eyes, with the dainty glossy vivid grass green of the carpet of the slender stream. A fleck of sunlight dances on the water, and draws our attention from the only unsightly spot—

the red clay bank, eroded by a washout.

"I have tried half a dozen times to get a photograph of this," says my companion, "but it never comes out right. I have normally exposed and under-exposed and over-exposed, and 'flat, stale, and unprofitable' is all that I get. I wish you could tell me why."

But this is easy. We have two shades of green and a red, filling the entire plate. The only contrast in the whole picture is that of the sunlight on the water, which, like most tree hung streams, is dark and cold in appearance, and the blue sky above the trees. If we expose for the shadows and the dark greens we over-expose the water where the sun strikes it, and get a bald-headed negative with a bald spot in the center, yclept sunlight and looking about as much like sunlight as chalk looks like what comes after pie. If we expose for the sky and the cloud which we wait patiently to secure, we get trees which vie with the grass for blackness and the bank for Stygian darkness.

These contrastless scenes are pretty hard to manage—like standing an egg on end—until you know how. To over-expose is to get flat tones, no contrast, and halation—to under-expose, nothing but contrast with two tones, and a normal exposure doesn't seem to be possible. But the remedy is so simple, that once found it need never be lost again—it is, an orthochromatic plate with or without a ray screen.

An orthochromatic plate—iso-chromatic is another word meaning the same thing, is a plate which has been made more sensitive to the red and yellow rays of light than the ordinary plate. This is

accomplished by treating the plate, after coating, or the emulsion, before coating, with certain dyes. These dyes have the effect of absorbing certain wave lengths of light, and as it is necessary for light to be absorbed to produce chemical effect, this absorptive process in the film renders the film more sensitive to the special colors the dyes affect.

It is obvious then, that any orthochromatic plate, or a plate which is more sensitive to yellow (and consequently to green) will give a more truthful rendering of a landscape which is largely green, than one which is very insensitive to that color. The distinction between color differentiation and luminosity differentiation has often been pointed out, but can be emphasized again without hurt, here; two shades of one color may have equal luminosity value, but be different to the eye—two colors may appear equally brilliant to the eye but have totally different luminous values. For instance, the ordinary plate makes no difference in the amount of deposit between the bright green of the grass and the dull green of the trees. It makes a too great difference between a bright yellow flower and a blue or violet one, rendering the most luminous (yellow) much darker than the least luminous (violet). So that when we increase the sensitiveness of our plates to the reds, yellows, and greens, we increase their ability to differentiate luminosity by differing renditions of monochrome.

"And the screen?" As no perfect orthochromatic plate can be made there is a residual amount of violet and ultra violet light which overpowers the weaker rays of the darker colors, and produces bald-headed skies, and white paper for sun flecked water, even with an orthochromatic plate. So we employ a screen or filter—some means of interposing between light and plate a screen which will

absorb the preponderance of violet blue and ultra violet rays, and bring the proportion down to a reasonable agreement with the yellow, red, and green rays. Inasmuch as the ray screen cuts out the most effective rays, it increases the exposure.

"But that increased exposure prevents many pictures being made!"

True. Equally true is that the ray screen is often used where the necessity for its use is not apparent. Inasmuch as no two people see color or light exactly the same, and as no words can convey shades of color it is simply an impossibility to say, in print or orally, "under these circumstances you must use the screen—under those circumstances you must not use it. But this much can be said. The use of the screen alone does not give an orthochromatic effect. It merely aids a plate to render certain colors by cutting down the effectiveness of other colors, as regards the sensitive emulsion. Therefore, the screen must be used when the necessity is present and the necessity is present when there is a large proportion of the extra rapid rays present in the view. When the scene includes a field of blue flowers, a blue dress, white clouds, snow with shadows, or other objects which reflect more blue, violet, and white light than anything else, use the screen to cut down the intensity of such light, and give the other colors in the view—the green of trees, the yellow of buttercups, or the pink of a pretty face, a chance to affect the orthochromatic plate.

When the light reflected is largely yellow or red—at dawn, at sunset, within yellow walls, of yellow flowers, or autumn foliage, or of a painting by a screened and yellow light, the screen is not only not necessary but does evil rather than good, since it simply serves to intensify the yellow color, increase ex-

posure, and, there being little blue, ultra violet or white light to cut out, serves no useful function.

Every photographer must be unto himself a law as to when to use a screen and when not to use it, but the experience can soon be gained if he will be content to do what has been advised a thousand times before me, and with all my might by me, many times—use plates, and plenty of them, for the express purpose of getting experience. If you are in doubt as to whether or not to use a screen with a certain subject by all means use one on an exposure, and make a duplicate, without it. Mark the plates, develop and observe which print is best. Then observe which print is most truthful to the scene as it was, and from this store away in your memory the experience of with or without the screen for the next similar view which you wish to take. Do this a dozen times on a dozen subjects and you will come pretty near knowing when again the problem comes up whether this is a “with screen” or “without screen” picture.

“Will a screen help without an orthochromatic plate?”

Assuredly, if the need for the screen is to cut down the violet rays—for the screen affects the rays whether they ultimately fall upon a plate more sensitive to red and yellow than the usual, plain plate, or not. Undoubtedly an orthochromatic plate is best to use, whenever color enters into the problem, but, failing the orthochromatic plate and having a view with a preponderance of violet or white light—and *the contrasting colors*,—a color filter will help a plain plate. The color filter will need to be deeper in color for the plain plate than for the orthochromatic plate, since it must slow up the blues and violets to somewhere near the insensitiveness of the plate to the reds and yellows.

“How deep a screen should I use?”

Getting into deep water, now! Here every plate maker,—and many lens makers—are laws unto themselves. But as between the choice of two filters, one a three times and one a five, and one a five and the other a ten, I should take the lighter pair. The beginner in orthochromatics is usually anxious to do the matter up brown and so uses a screen entirely too heavy. He then over corrects his colors and goes as far on the wrong side,—the other side,—as he was with a plain plate as far as luminosity goes. For a screen which is too powerfully colored will cut down the blues and violets too much and the result will be that those portions of the picture which should show light, if not bald-headed white, are dark. Not infrequently one sees a sunlit landscape with white clouds against a dark, dark sky,—an utter untruth except under some exceptionally stormy circumstances. When there is sunlight in the landscape, and white clouds, as a general rule there is blue sky. The white clouds, having greater luminosity than the blue sky, should be represented, in the truthful landscape, as white against a tinted sky—tinted meaning slightly darker than white, but to render them as white against black or dark gray is to tell a photographic lie as bad as the bald-headed sky of the plain and screenless plate picture.

This too dark tint for a blue sky is the result of too heavy a screen or too short an exposure, and, if the rest of the picture be properly exposed, the too dark screen can be diagnosed with accuracy. As the average landscape has its beauty, not in the clouds but in the line and tone of the landscape, too pronounced a sky is not to be advised anyway, hence, on all landscapes where a screen is to be used, the lightest one should be carefully considered before resorting to the darker

one. On the other hand, the lighter the clouds in the sky, the heavier the screen should be,—the heavier the clouds, the lighter the screen need be.

It is not altogether color value which is the advantage of orthochromatic plates and ray screen. In distant views of all kinds in these middle latitudes and altitudes where the sea of dust is a mile deep and over all the land, a haze, blue to gray, obscures most of the distance. This haze has pronounced luminosity to the plate, is rich in refracted blue and violet rays and frequently covers our landscapes with a veil far denser than the natural haze managed to accomplish. A screen cuts down the effect of haze, just as it does the blue of the sky, by absorbing or cutting out the blue and violet and ultra violet rays. In mountain photography, or views from mountains, in photographing from kites, balloons, or high buildings, and in telephotography, a screen will be found next in being essential to the lens itself, with the orthochromatic plate a close second.

The beginner in this work should also know, and remember, that as the richer in silver the plate may be, the more orthochromatic it can be made, and as the yellow dye slows the plate, plates rich in silver or slower emulsions are usually used to make these plates, which become slower still when dyed. Exposures should be greater on this account and also because full exposures give the best results with ortho plates. On the other hand, these plates are quicker in yellow lights than plain plates, since they are specially sensitized for such lights, and so for sunset work, or portraiture under a yellow light, are faster than most plain plates.

Finally, remember that as you have in the orthochromatic plate a plate sensitive to red and yellow as well as blue and violet, you should use care in selecting and using your darkroom light. The more you don't expose these plates to any light, the better will the results be—hence, let me whisper it before I am chased to cover by a public I have wearied with the word—use a tank!

(To be continued.)

BLUE PRINT LANTERN SLIDES.

BY F. P. LONG.



HAVE you ever tried to make a lantern slide by the same method that you make blue prints; if not then try the following recipes and see the wonderful changes that will be wrought through them.

Take a dry plate $3\frac{1}{4} \times 4\frac{1}{4}$, cut $\frac{1}{4}$ inch from the end so it will be the same length as a regular slide $3\frac{1}{4} \times 4$. Fix all the silver out in a good hypo bath, wash well in running water or in 10 or 12 changes of water.

Take 1 ounce cyanine blue print powder and mix with 8 ounces of distilled water.

Now take the plate or plates from the wash water, swab with a tuft of wet absorbent cotton, place them in the sensitizing solution for five minutes, remove them from the solution and place them in a rack to dry, drying them in a warm darkroom.

After being thoroughly dry, select a good negative with plenty of contrast, print in direct sunlight, one or two trials

will give you the correct time to print, after printing the required length of time remove plate to the darkroom.

Now make a stock solution of bichromate of potash, 1 ounce, water 13 ounces, leave this stock solution dissolve thoroughly and keep it in the dark.

After the plate has been printed the required length of time develop in the stock solution taking $\frac{1}{4}$ ounce of stock solution to 16 ounces of water.

After plate is fully developed, place in fixing bath made up of

Oxalic acid $\frac{1}{4}$ oz.
Water 32 ozs.

now wash well and place in rack to dry, the result received from this will give a perfect blue lantern slide.

If other colors are desired they may be had by toning, remembering that the plate should be printed deeper than for a blue tone.

FOR SEPIA OR CHOCOLATE.

Immerse the slide in a saturated solution of sodium carbonate until the image has disappeared, wash in several changes of water, and then transfer to a saturated solution of tannic acid, the longer it is left in this solution the deeper the tone.

FOR DARK PLATINUM.

Immerse slide immediately after washing in the following bath:

Ammonia 1 drachm.
Soda borax 1 drachm.
Water 6 ounces.

Allow to remain until bleached, then transfer to a saturated solution of gallic acid (Remarts) and leave until tone desired is reached.

FOR BLACK.

Immerse slide in a solution of

Soda borax $\frac{1}{4}$ oz.
Water 6 ozs.

when bleached transfer to

Tannic acid $\frac{1}{4}$ oz.
Gallic acid $\frac{1}{4}$ oz.
Water 8 ozs.

FOR PURPLE.

Place slide in

Soda borax 1 oz.
Water 4 ozs.

Let slide remain in this solution for 5 or 10 seconds, then remove and transfer to

Gallic acid $\frac{1}{2}$ oz.
Water 4 ozs.

swab with absorbent cotton.

FOR LILAC.

Wash slide in a weak solution of borax.

FOR GREEN.

Make a saturated solution of ferrous sulphate, acidify with a few drops of sulphuric acid, dilute with an equal amount of water, immerse the slide in this solution until required tone has been obtained, then wash well and dry. To get various tints of these tones vary the time of baths.

JUST A KODAK AND AN ELECTRIC LIGHT.

BY IRVING DICKINSON.



ONE evening not long ago, I had just finished clearing off from my library table everything on it.

"What on earth are you going to do now?" Glancing up I saw my wife in the doorway.

Without immediately answering I placed my Kodak ($3\frac{1}{4} \times 5\frac{1}{2}$) on one end of the table and then said, "Please, my dear, loan me that sepia photo of Eva for a few minutes."

Then "she knew?"

Returning with the photo (one of the

folder kind), I stood it up on the table, taking care to have it vertical, set the focusing scale at 6 feet, took my steel tape from my pocket and carefully measured 2 feet and 8 inches from photo to lens.

I then adjusted my 32 candle power electric lamp a little to one side and in front of the photo, moving the light back and forth until all the light possible was reflected down on the picture.

Next I slipped on the portrait attachment and opened the shutter, using the largest stop, U. S. 4.

During the five minutes of exposure which I gave, I sat down, smoked my pipe, and tried to convince my wife that I was in my right mind and would show her the proof of it on the following evening.

The next evening, like the Missourian, she said, "show me," so I took my Kodak tank (if you don't use a tank you are missing fine negatives) and in one half hour satisfied her curiosity.

I myself was satisfied also that it was far better than I could have done by daylight, because the light was constant and its intensity controllable (by using higher or lower candle power).

The electric lamp used consisted of a vertical standard with upright light at the top (the ordinary reading lamp) and covered with a circular shade having a dark outer surface with white enamel on its under side.

The light itself overtopped the photo by about 6 inches and the white enamel under surface of the shade reflected the light down on the picture.

The accompanying illustration shows the photo as it stood up on the table with the folder leaf at an angle acting as a reflector, also base of lamp at one side. My method of recording data is also shown, being marked on the film with jet black ink. The finished picture is



printed under a mask to cut out everything but the picture itself.

How did I know how much exposure to give? Use the same judgment as you would when making an outdoor exposure, eliminating the one condition of light, because electric light is not variable like sunlight, as its intensity is practically constant.

Also make a few previous trials and when a negative is obtained from which a satisfactory print is made, use that as a basis for future exposures. Take into consideration also the nature of the subject to be copied, whether it is light or dark in tone, the same as you would when exposing by daylight. The exposure must of course be longer.

By using a higher candle power light, a brighter illumination on the subject to be copied can be had, which will reduce the time of exposure.

Why did I use the largest stop? (In this case U. S. 4). Because the photo having but one plane there was no depth of focus to be overcome and also to admit all the light possible and reduce the time of exposure.

Editorial Notes



EVERY editor of a photographic journal receives countless letters, all of the same general trend, "How can I improve my work?" "How can I learn to make good pictures."

The mission of the editor is that of a teacher, and let him rack his brains to the utmost in supplying information, and in selecting articles of merit for publication, his work is never ending. As a matter of fact the manual that comes with your little Kodak is a wonderfully complete collection of sound, reliable information, and were its contents fully digested, and its instructions followed, most of the amateur's troubles would be over. Most of us are in too big a hurry, we want to run along before we can walk, we go slap dash into the thing without any very definite idea of just what we are going or want to do. We study over the first principles a little, learn how to load and unload the instrument, how to focus, and then put our faith in Providence as to exposure and development, and promptly proceed to lose the manual.

We forget that photography is a science and governed by immutable laws, and attempt to force things to come our way simply because we want them to. Still, on the other hand, many of us learn fairly well the technique and can produce good negatives and prints, and

know why we do it, and yet fail to make true pictures.

Most of us are too greedy, we want to accomplish in a week what should take months to learn properly. When we expose a plate, we attempt to fill it with too much, to include too many distracting objects that have no bearing on our picture proper—and then we wonder why we cannot make pictures. To succeed, we must learn to analyze ourselves and our work—to see if we do understand the primary parts before we undertake the more complex propositions. We must learn to analyze our pictures, *before* we make them. We must learn to select our subject and then to subordinate all else in the picture to that subject. It is true that in photography we must take our subject largely as we find it; we have not the power of selection or elimination that the painter enjoys, but we can subordinate the objectionable. Many times we can eliminate by choosing a different point of view or selecting a different hour of the day. We can subdue offensive high lights—easily in either negative or print—we can likewise strengthen other weak features that need emphasis. Elimination of distracting background or lines or masses is simply a matter of mechanics. We know that we can help ourselves, but we must learn just when to do it. We must cultivate the power of selection before we can expect to advance.



MONTHLY FOREIGN DIGEST.

TRANSLATED BY HENRY F. RAESS.

A Non-Inflammable Substitute for Celluloid.

For some years Dr. A. Eichengruen has been experimenting with acetyl cellulose, prepared by acting upon cotton with acetic acid. This new compound is called cellit and is very similar to celluloid in its properties, but differs from the latter in that it burns only with difficulty. Films tested in the moving picture factory of Ed. Liesegang showed them to be just as good as celluloid. The films after ten minutes in the lantern showed no change, while celluloid films ignited in three seconds.—*Die Umschau*.

Sensitized Silk.

Rechnitzer's method for sensitizing silk is as follows:

English.		Metric.
33 ozs.	Boiling water	1000 c.c.
$\frac{1}{3}$ oz.	Ammonium chloride	10.0
90 grains	Iceland moss	6.0

The silk is placed in the above solution (hot) for fifteen minutes, it is then dried. To sensitize the silk, it is placed in a bath of silver nitrate, 6.0 gms. (90 grains); water, 100 c.c. ($3 \frac{1}{3}$ ozs.); nitric acid ten drops. After this the silk is again dried. The image should be printed quite dark and then toned in

82 ozs.	Water	2500 c.c.
1 oz.	Sodium acetate	30.0
15 grains	Precipitated chalk	1.0
15 grains	Gold chloride	1.0

The toning bath should be prepared one day in advance. Fix for twenty minutes in a moderately strong neutral bath.—*Apollo*, Vol 14, No. 301, Jan., '08.

An Improved Permanganate Reducer, by Prof. R. Namais.

The author found that sulphuric acid could be advantageously replaced by

alum. To one liter (33 ozs.) of a cold saturated solution of common alum is added 2.0 gms. (30 grains) of potassium permanganate. The above solution keeps much better than the old one made with sulphuric acid, and at the same time hardens the film. This reducer is what is called a selective reducer, that is it reduces the dense portions more than the shadows, making a softer printing negative. On account of the precipitation of manganese dioxide, the film is colored a dark brown, this can easily be removed by means of a five per cent. solution of sodium bisulphite.—*Eder's Jahrbuch*, 1907, page 107.

Iron Printing Process.

The following is a simple method for obtaining prints in various shades of brown and sepia. Well sized paper, preferably those with a matte or rough surface should be used. Various grades of Whatman's papers are well suited. To 100 c.c. ($3 \frac{1}{3}$ ozs.) of a cold thin starch "solution" should be added 12.0 gms. (3 drams) of potassium ferricyanide dissolved in as small a quantity of water as possible, and a saturated solution of ammonio-ferric citrate containing 14.0 gms. ($\frac{1}{2}$ oz.) of the salt. This mixture is then applied with a stiff brush. The brush should be worked in every direction so as to evenly coat the paper. The printing should be done in strong light until the shadows acquire a silver gray tone. The print is then washed in distilled water, then in plain water acidified with a few drops of hydrochloric acid. After this, the print is washed for a few minutes and then placed in a bleaching solution composed of sodium carbonate 1—30 and

again washed. After this the print is placed in a toning (or developing) bath of gallic acid 1 part, water 120 parts. Strong negatives should be used in order to obtain vigorous prints. The drying is best accomplished by pinning the print on a drawing board. After mounting a thin coating of French varnish increases the brilliancy.

[The original article calls for gallic acid, 20.0 gms. (2/3 ozs.) ; water, 150 c.c. (5 ozs.) ; but gallic acid is only soluble in the cold 1—120.—*Translator*.]

—*Photographische Chronik*, No. 104.

Paper Window Transparencies.

Paper window transparencies can easily be made by using thin albumen paper sensitized on a strong silver bath and printing darker than usual. As the picture will be viewed by transmitted light, the toning should be judged by looking through the print. After toning, the print is fixed, washed, and dried. The sheet of glass upon which the print is to be mounted should be well cleaned, slightly warmed, and a five per cent. gelatine solution poured on. The print after dampening is laid on the gelatine solution, care should be taken that no air bells are present, and that none of the gelatine solution gets on the back of the print. The print should be dried without artificial aid. Should some of the gelatine get on the back of the print, it may be removed after the print is thoroughly dry by means of hot water and a sponge. The print should then be allowed to dry again. The print is now ready to be made transparent. This is done by painting the back of the print with paraffine oil. After some hours the oil will have penetrated the paper and rendered the print transparent. The excess of oil is then removed with a tuft of cotton. To protect the print it may be varnished with copal.—*Exchange*.

Influence of Moisture on Dry Plates, by A. & L. Lumiere and A. Seyewetz.

The authors made a series of experiments to determine what action water and developers would have on the sensitiveness of dry plates. It has been known for sometime that plates lose in sensitiveness when in a moist condition. This loss varies according to the nature of the film, speed of the plate, and, in the case of orthochromatic plates, there is a loss of sensitiveness for certain portions of the spectrum. The plateholder was so arranged that one portion of the plate dipped in the solution, another portion was moist, and the third was dry. The fast plates became about five times slower when either wet or only moist. There was practically no difference whether water or developers were used. In the case of the slower plates, the difference was less marked and some color sensitive plates showed no change. Drying the plates in a desiccator over sulphuric acid or heating to 100 deg. C. (212 deg. Fahr.) did not increase their sensitiveness above normal. The final conclusions were that:

First. Silver bromide gelatine plates when soaked with water or a developer and then dried regain their original sensitiveness. Thoroughly drying the plates does not increase their sensitiveness.

Second. The loss in sensitiveness varies according to the kind of plates.

Third. There is but little variation in the loss in sensitiveness for the same kind of plates for different regions of the spectrum, the loss is greatest in the yellow and green regions.

Fourth. A knowledge of these properties may be of value in selecting a proper illumination for the darkroom, especially in developing highly sensitive plates.—*Photographische Chronik*.

LIGHT IN THE DARK ROOM. AN ARTICLE FOR BEGINNERS.

BY W. H. ALEXANDER.



HE comfort of the photographer very largely depends upon the light in which he works; and one of the first questions before the beginner who takes up camera work is how he is to get the red light in which some of his operations are to be performed. If he uses roll films, and does not intend to print in rapid bromide, he can manage very well without a darkroom at all; as his camera is daylight loading and the Kodak developing tank leaves nothing to be desired, either for quality of the result or comfort in obtaining it. But if he uses plates the question is one to which he must give attention.

The great majority of photographers to-day use some form of lamp; daylight not being often employed. There is a good reason for this. Daylight fluctuates so greatly, that if we make a window quite safe when the daylight is strong, the room will be almost pitch dark when the daylight is weak; while if our window lets in enough light for us to see what we are doing on a dull day, it will fog our plates, to a certainty, when the daylight is brighter.

Daylight may be used, however, if a device is employed to counteract this. If an ordinary window has its top half blocked up entirely, the lower half may be effectively glazed with two thicknesses of good ruby glass. When the light outside is very dull, this protection will be sufficient; but on a bright day it would not be safe; and so a curtain of some partly transparent red material may be provided which can be drawn across the window. A blind of "ruby fabric" or of

"orange fabric" may be used for this purpose, the material being mounted on a spring roller of the ordinary kind.

The safety of such a light depends very largely on the quality of the ruby glass. This must be got from a photographic dealer and not from a glazier; because there are red glasses on the market, used for decorative purposes, which to the unaccustomed eye are very much like the proper ruby glass, but are quite unsuitable; and would fog a plate directly. The beginner cannot tell whether the glass with which he is supplied is of the right sort or not, and so he must go to the photographic dealer to make sure that he is getting what he wants. Two thicknesses of this ruby glass will be found to let almost as much light through as a single thickness; but for reasons which there is no need to point out, they are much safer than one. By safe is meant that the light they pass is not likely to injure the plate, in the comparatively short time it should be exposed. Orange or yellow glass is also supplied by dealers; but except for lantern plates and for bromide paper, and in the latter case only with caution, it cannot be used by itself; but one thickness of yellow and one of ruby give a brighter light than two thicknesses of ruby, and one that is almost safe.

The cost of ruby glass is high, and when it is wanted to block up a window many would be glad of something cheaper. The ruby and canary fabrics sold under those names by dealers are very suitable. One thickness of these must never be used by itself, however, because there are always fine holes in it which let white light through; but two thicknesses

are a precaution against this. A very good plan is to block up a window with a layer of ruby fabric between two of canary fabric; this gives a poor but safe light under all ordinary conditions, and allows plate changing and similar work to be done without any need for a dark-room lamp; while any work requiring more light, such as developing, may be carried out by means of a regular dark-room lamp. In blocking up a window with these materials, the outermost one will gradually fade, but will serve for a long while to protect the inner ones from fading. Red and yellow paper can also be obtained for blocking out purposes, and is less likely to contain pinholes than is the fabric; on the other hand, it is more easily damaged.

Darkroom lanterns are legion; one large dealer alone lists over a hundred patterns. They are nearly all characterized by a serious defect, imperfect ventilation. This leads, in the case of oil lamps, to irregular burning owing to the oil reservoir getting hot, to smoking, and, above all, to glass breaking. As the larger the lantern, as a rule, the larger the air passages, this is a good reason for getting as large a lantern as can be managed, provided the size of the source of light (and heat) is not increased at the same time. In any case the lantern as bought should be examined, and if in any way the inlets and outlets for air can be enlarged without letting light out at the same time, it will be found a good plan to do so. There is another advantage about a large lantern, it takes a large piece of glass. The larger the glass, in reason, the better. More light of a safe character can be got from a large piece of deep ruby, let us say, than from a small piece of a lighter ruby. Some darkroom lamps take glass not only in front but at the sides, and so light the darkroom better. Some have

a reflector or shield to throw the light down on the dish and to screen the eyes. This is never wanted and is a complete mistake. A strong light on the plate is quite useless and very harmful; in fact, it may be taken as a good rule that the surface of the plate as it lies in the dish is the one place whereon the light should not fall. Most darkroom lamps ignore this and leave the rest of the bench in deep gloom. Hence arise smashings innumerable, and bottles and measures are soon upset and broken, to a greater value than the cost of an efficient lamp.

This brings us to a very important consideration in darkroom lighting, and that is that the safety or otherwise of a light depends very largely upon the photographer himself. One man will use a bright light so that he can see in comfort, and will get negatives quite free from fog; while another will work in a deep gloom and yet will fog his plates, although actually his light may be safer than the other. This is because the second does not understand how he can protect his plate. There used to be an advertisement with a picture of a man in his shirt sleeves developing a negative that was lying in a dish an inch or two from the red lamp, and immediately under its rays. If his light were such that he could develop an extra rapid plate there, without fog, the rest of the room must have been in pitch darkness. However, the development is carried out, the dish containing the plate should be kept for nine-tenths of the time covered over with another dish or a piece of card. For the same reason, in filling dark slides the photographer should stand with his back to the light; there is no reason why any light whatever should fall directly on to the plates in this operation. If work is conducted in this way, a much brighter light can be used in the darkroom, with a corresponding gain in comfort.

The best position for the darkroom lamp is supported on something which raises it three or four inches above the general level of the bench, at the left hand of the operator, and turned so that it sends its light over the bench, enabling him to see where everything is which he is likely to want. For plate changing, if there is only one bench in the darkroom, the lamp can be turned so as to face the wall, and if it is about a foot or so away from the wall this will allow of ample light. Some books recommend the darkroom to be painted or distempered red or orange. If the light were unsafe, any light reflected from such a surface might be rendered safe; but if the light really were so unsafe as to make this any advantage, it would be practically impossible to use it at all.

It has been pointed out that the safety or otherwise of the light cannot be judged by the eye alone; but a test is easily made. If two plates are exposed for the same time on the same subject, and one is developed in the ordinary way, noting how long the operation takes, the other may be developed in absolute darkness, the photographer getting someone outside the room to tell him when the time is up. Fresh developer should be mixed up and every precaution taken to see that except in the matter of the light the plates receive identical treatment. If the plate which was developed with the red light is any foggier on the edges than the plate developed in darkness, this may be put down to the action of the light, which for that plate may be then considered to be unsafe.—*Photography*.

SOME SECRETS OF DOG PHOTOGRAPHY.



It seems strange to talk of secrets in connection with photography when we consider that nowadays every third person we meet with has a camera, and knows all there is to know about "taking photographs"; but as there are certain features in dog photography which, though they may be well known, are not generally recognized, it is, perhaps, possible to strain a point and call them "secrets." Probably there is no other branch of photography that provides such a varied experience as dog photography. With so many different breeds, each possessing its own distinct characteristics (and every single dog its own peculiarity of temperament) which it is the object of the photographer to reproduce in some degree, it is open to question whether it is ever possible to do

thorough justice to a dog in any photograph, a statement with which most owners will agree, with regard to their own dogs at any rate.

HOW TO TREAT A DOG "SITTER."

Patience is the most important factor in the whole business, though it is needless to say a love of animals is indispensable. Without unlimited patience, both on the part of the photographer and the person who takes the dog in hand, its quite useless to attempt to get a successful picture. Of course, dogs differ; sometimes it is possible to snap a splendid position almost immediately the dog is brought out, but very often the subject objects to standing in "perfect positions" even long enough for an exposure to be made, to say nothing of focusing; and it is only after many devices have been tried, and much pati-

ence displayed, both by the dog and his tormentors, that the weary victim is allowed to return to the kennel to make room for the next, which may prove to be as easy to "take" as its predecessor has been difficult. Too much is not to be expected of dogs; nor should their patience be tried too severely. If they can be induced to remain still for a few seconds, that is all that should be required of them.

One is often met with the remark that if the dog could only be followed about with a hand camera ready focused, and "snapped" when in a good, natural position, it would be a much easier performance. So it would, but would it give the same result? In the majority of cases the picture would be quite useless, and might even be a gross libel on the dog. Dogs have such an unhappy knack of posing in places where the background is unsuitable and the light all wrong, that it is much better to fix on a suitable spot and endeavor to bring the dog up to it. Again, it is much better to photograph on the floor, and not use a table or bench (there are exceptions, of course); dogs feel much more at their ease on the ground. The camera must be brought somewhere down to the level of the subject. Hence the only way to work a hand camera would be to follow the dog about on one's knees—a rather trying task—unless the manipulator happened to be a dwarf.

THE IMPORTANCE OF THE BACKGROUND.

Choosing the background has a lot to do with the success of the resulting picture, and due regard has to be paid to the dog's coloring, in order to make the subject stand out from, and not sink into, the surroundings. Sometimes however, it is an advantage to make the dog's weak points (such as faulty hind-quarters) tone into the background (to

make their existence less noticeable) and sometimes it is advisable to emphasize the good points by making them contrast with the background. Much can be done in this way by work on the negative afterwards, but in every case the plainer the background the better. How often we see a really good position of a dog spoiled as a picture by a row of flower-beds, or by ivy leaves (which appear to be growing out of the dog's head) or by iron railings, which appear to have taken root in its back!

DOG PORTRAITURE OUT OF DOORS.

Dog photography out-of-doors is much easier than in a studio on account of the rapid exposures that can be made, but most of the smaller breeds of dogs make much better pictures indoors where the light is under control. It is quite a fallacy to imagine that the sun is better for a photograph than shade. A strong, white light, with the sun obscured by clouds, gives the best results—more details in the shadows, more roundness to the body, and a more natural picture altogether. Harsh sunlight with heavy shadows (to say nothing of the alteration in the colors of the dog due to excessively patchy high-lights on the sleek glossy coat) gives a picture that is hardly recognizable when compared with one taken in a subdued light. Old English sheepdogs, and breeds with a similar kind of coat, can be photographed in any kind of light provided there is enough of it. It must not be imagined that because a dog appears to those standing near (possibly holding him on a lead) to be in a good position, that that position will photograph well. The photographer at the camera is the best judge, since he alone can see exactly what the lens will reproduce; and he knows that pictures that have the appearance of being "full of life" often make very dis-

appointing photographs. "Too many cooks spoil the broth," but the dog photographer would be quite helpless without some assistance from those who know the dog best; and, doubtless, one of the great secrets of success in dog photography lies in the photographer's ability to so direct those assisting that they may control the movements of the dog, and make him stand in good positions, of his own accord, and without forcing him to do anything

It is much better to entice a dog up a step, or to lead him round for a short run and bring him up again in the required place, than to pull him backwards and forwards on the lead, as it takes a very little to make a dog blow and pant, especially in hot weather. Touching the mouth or tongue with a damp cloth will often cause the dog to close it for a second. Sometimes it is necessary to lift a dog, so that the front legs come straighter, closer together, and more on the toes. This can be done by placing the hand under the neck and lifting, at the same time speaking to the dog in a reassuring manner—not by pulling him up by the collar. Sometimes it is impossible to get a group of dogs to keep still; this difficulty may be overcome by photographing each dog separately, and then combining them

POSING THE DOG.

Generally speaking, it is easy enough

to get a dog's attention by some slight noise, but it is one of the accomplishments of the dog photographer to be able to bark and growl like a dog, mew like a cat, scratch like a rat, imitate dogs fighting, and make other weird noises; then to notice the sound that takes the fancy, and reserve it for a really good position. The mention of the name of a rival in the kennels will often succeed when every other device has failed to attract; but sometimes this has such a disturbing effect that further operations are rendered impossible. It is as well to commence in the quietest way, as it does not take much to arouse the suspicions of some dogs; and once a dog gets suspicious and nervous it is all up with a photographer. Sometimes it is possible so to rivet the dog's attention by some noise or action that the person holding the dog can slightly alter the hind legs or tail without the dog's notice; often the tail will not stay in position, and has to be held, and the hand "taken out" afterwards.

Though the secrets of dog photography are many, its disappointments are many also, but its study presents a source of inexhaustible interest, and its difficulties will probably continue to exist so long as there are dogs to photograph.

—THOMAS FALL in *British Journal*.

AN IMPROVEMENT IN MAKING COMBINED NEGATIVES.

BY DR. MEBES, BERLIN.



R. A. HORSLEY HINTON'S method of making combined positives for pictorial printing is a very ingenious device, which every picture-maker should try

to master. As long as we print a visible image on P.O.P. of any kind, success will be sure at all events, but as soon as we undertake to make combined positives with *invisible* images on dry plates, we shall run many risks. Horsley Hin-

ton, however, succeeds in his method, his pictures prove that, but I should like to know the many times he does not. He knows very well that building up an invisible image is rather playing "blind man's bluff," but he believes that, by systematically working, this deficiency will be easily overcome.

Some years ago, when I became first acquainted with his method, I perceived this heel of Achilles at once, and the remedy too. This help was so easily to be found that I was rather astonished that neither the inventor nor anybody else up to this day, as much as I know, got the same idea as I did. I think the pursuit of making a *positive* image on a dry plate caused them to overlook the fact that one can do this and yet get a *visible* image, and thus be enabled to process at leisure. As soon as we can watch and control the whole printing method is unrivalled. The modification I have given to his system removes this last fault.

With the aid of the bichromate process I make my combined positives, which turn to reversed negatives when they are developed. From these negatives, reduced and right way up, positives are taken in a camera. This process allows one to sensitize the dry plates in accordance with the character of the negatives to be combined, to control the visible image every moment, and to finish printing with all the refinement we may be able to display on P.O.P.

My system yields two methods of making visible positives:

(1) I bathe the dry plates for three to five minutes in a two to five per cent. solution of potassium bichromate or ammonium bichromate; the percentage of the solution only depends on the character of the used negatives. I drain the plate, mop with fine, flawless blotting-paper the film side, and am very

cautious that no drops of the bichromate solution will remain standing on the film, otherwise black spots would appear when developed. The plate is then quickly dried. All this is best done in the dark-room with ruby light. In the dark-room the bichromated plate is placed in the printing-frame, and then printed in daylight. The image will soon appear in a light brown color on a light yellow ground. The progress of printing can be controlled in the dark-room with yellow light from the back of the plate in the beginning, further the plate is taken out of the frame and the image examined at leisure in yellow light. As soon as the high lights begin to become visible, printing is finished. We print the second negative now and continue till all negatives to be combined are printed. Then we have the complete positive image in a brown color before our eyes, and can still modify it by sunning down, faking, and using all the tricks we know. When we believe the picture well finished, the print is washed until the color of the plate turns to a blue-greenish one. Then the plate is very well rinsed under the tap and dried in dark. The plate is then developed with the regular ferrous-oxalate developer in subdued daylight, well rinsed, and immersed for five five minutes in a clearing bath of one per cent. solution of glacial acetic acid. The plate is then fixed in an acid fixing bath; fixing will require a very long time.

As the unhardened gelatine is only blackened, the fixed print is a reversed negative of extreme fineness. This negative should now be retouched, if necessary. A positive, taken from such a negative, will be superior to any by the old method.

(2) A well-cleaned glass plate is first coated with a 5 per cent. solution of silicate of potassium, and then with a 2

per cent. solution of hard gelatine, and dried. The coated plate is sensitized in a 2 to 5 per cent. solution of ammonium bichromate and dried in dark. The negatives are now printed; the image is visible, and can be controlled. As soon as printing is finished, the plate is washed till it is free from color. The plate should then be immersed in a solution of Platinschwarz M, a dye made by Farbwerke vorm. Meister Lucius and Brüning, Höchst a. M., Germany. The dye only stains the unhardened gelatine, and thus a negative absolutely free from grain is obtained.

If in both methods the reduced chromium salt is not well washed out, the plate should be immersed in a 2 per cent solution of potassium metabisulphite. Should anybody wish to get the print in both methods in a far deeper brown color, some 5 per cent. solution of manganese sulphate may be added to the bichromate bath. The manganic oxide staining the film is then removed in a very weak solution of oxalic acid.

I hope that this little improvement will contribute to promote Horsley Hinton's admirable method and make many new friends.—*Amateur Photographer.*



THE SISTERS.

George Donahew.

Notes and Extracts

THE PHOTOGRAPHIC ANNUAL, 1908, incorporating "The Figures, Facts, and Formulæ of Photography" (4th edition extended, largely rewritten and revised throughout), edited by H. Snowden Ward, 284 pages, paper covers, 50 cents; postage 8 cents; cloth bound, \$1.00; postage 10 cents. New York, Tennant and Ward.

In this new *Annual* we have what is undoubtedly the most comprehensive and most carefully digested collection of photographic information ever contained within the covers of a single book. As the sub-title shows, it is a new edition of the well known "Figures, Facts, and Formulæ," but doubled in size, rewritten, and revised throughout. The subject matter covers every phase of photographic work in classified sections, giving formulæ, tables, and practical methods in the fewest possible words consistent with clearness. A special feature is the 64 page Glossary of photographic facts, definitions, etc., making the book one which no photographic worker should be without.

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JAMESTOWN CAMERA CLUB.—The annual meeting of the Jamestown Camera club took place Tuesday evening in the club rooms of the organization in the new Gifford building. It was a well attended and especially interesting session. An informal review of the year's work proved very satisfactory to the members and showed that the months had been busy ones and the results most beneficial and enjoyable.

The officers for the coming term of twelve months were then elected as follows: President, John M. Cushman; vice-president, Chas. E. Craven; secretary, Albion H. Hooper; treasurer, E. A. Sample; directors for three years; Myles C. Nichols and Al. Eckstrom; directors for two years to fill vacancies, Chas. E. Craven and Alex. Parsons; director to fill vacancy for one year, Albin R. Carlson.

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SUBDUING UNDESIRABLE DETAIL.—It often

happens that a picture taken with pictorial aims turns out to be what one might call a shade too perfect. The sentiment in the scene is lost—and at first it is hard to say just how this loss has occurred. Consideration shows that what is lacking is softness. The negative is too sparkling, too juicy, too full of detail. It is a testimonial to the excellence of the plate and of the lens, and an example of our own skill in the manipulation of photographic formulæ and apparatus; but it lacks feeling. As a rule, this occurs, too, in negatives which have been a trifle over-developed and which are on the harsh side. Printing reveals a picture in which the interest is scattered, and in which the spotty high lights attract too much attention to themselves. If printed on P.O.P., the said high lights are accentuated by the fact that they fade somewhat in toning and fixing, while the shadows do not seem to fade proportionately.

A partial remedy for all this is to print from the glass side of the negative, and thus deliberately throw the whole thing a little bit out of focus. That is, the negative is to be placed in the printing frame with its glass side inwards and its film outwards, the paper being placed against the glass instead of against the film. The result is a print of far greater softness, yet retaining all the main detail; the little needless detail is lost, and the whole effect is often immensely improved.

In printing platinotype, another way to produce a similar effect is to print through the paper: that is, the piece of platinotype is put into the frame with its coating towards the pressure-back. The image thus prints through the paper, and takes its texture. Naturally, printing takes longer, and must be done more carefully for unless the back of the frame fits very well, light may reach the edges of the paper and spread inwards, causing fog. A convenient way to prevent this is to lay the frame, while printing, on a soft cushion, into which it sinks slightly: the cushion rises up round the edges of the frame and prevents light getting in at the back. Platinotypes made

thus have a pleasant softness. This method does not work satisfactorily with P.O.P.

Printing from the wrong side of the negative is, however, quicker and almost similar in its results. The view is, of course, reversed, but in landscapes that is of small importance. Unless, however, the negative is printed in one printing, or is not moved much during the course of printing, there is apt to be a double outline round any very marked lines in the picture, and this gives a most unpleasant effect. It is desirable, therefore, to place the printing frame in such a position at the window that it can readily be returned to exactly the same position after the paper has had an examination. The best plan is to lay the frame on the sill with one of its edges touching one of the sides of the window. By always putting the frame back so that the same edge touches the same side of the window, a not-doubled image is assured, if printing is fairly rapid. In order to ensure rapidity, printing should be done in a bright light—even in sunlight, if the negative is of a quality which will stand it.

The effect of this type of fuzzifying is quite different from the effect of merely printing on a very coarse paper, and must be tried to be understood. It is especially valuable when the principal object in the picture is sharp and the background is unsharp, for this relationship is retained; the main object, though now unsharp, is less unsharp than the background. When the whole picture is sharp all over, printing from the glass side of the negative may still be an advantage, but the advantage is not so marked.—*The Amateur Photographer*.

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MULTIPLE MOUNTING WITHOUT COCKLING.—

I have read several articles from time to time relating to multiple mounting and methods to prevent cockling of the papers, but I have never seen the following way mentioned, though it may be a very common one. When I first tried multiple mounting my papers were a wonder to behold, so varied were the patterns in relief that they assumed when dry.

Some kind friend recommended wetting the papers. This certainly stopped the cockling, but it took all the beauty out of the papers and gave them a mottled appearance not guaranteed to charm the eye of the exhibition judge, to say nothing of making the adhesive too wet to stick nicely. Now I get about half a dozen sheets of good, clean, stout blotting paper, larger than the largest mounting paper, and *damp*, not wet, the blotting paper. To do this

I wet a clean cloth and dab all over the top piece of blotting paper until it has absorbed some dampness all over. Next place the first mount face upwards on the damp surface, cover the back of the print with mountant and stick it in the required position; then I have the back of my print and the back of my first mounting paper about the same dampness.

I then measure from the edges of my print the required depth I want my first paper to be, and trim the edges. By this time my first paper is ready to receive the mountant to be stuck to the second paper, which is repeated in exactly the same way. I can safely say I have never had a multiple mount cockle since adopting this method.—ARCHIBALD H. DODMAN.

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WHAT IS OIL PRINTING — AN EXPLANATION FOR THE TYRO.

What, exactly, is "Oil Printing"? Let me try and explain it in the simplest language I can compass: for I suspect that there still exist a multitude of amateurs to whom the very name "oil" is still new and maybe meaningless. Put shortly, then, oil printing consists in making a photograph whose basis is not silver (as in P.O.P. or bromide paper), not platinum (as in platinotype), not "water-color" pigment (as in carbon and gum), but an oil pigment exactly similar to that used by an ordinary painter in oils, or at any rate similar to the thick greasy ink used by the process-block and lithograph maker. At a glance it will be seen that an oil print has two advantages over certain of the other photographic processes. Firstly, the image is peculiarly "juicy" (to use a singularly meaningful piece of popular slang); and, secondly, it is absolutely permanent. An oil-pigment print will last as long as the paper on which it is supported. It can never fade, and there is no reason to suppose that it will ever change color appreciably. A century or two hence the Demachy oil photographs recently shown at the Royal Photographic Society's rooms will be, as far as endurance goes, as rich and clear as the canvasses of Mr. Sargent.

But these two features are only the beginning of "Oil's" claim to attention. After all, richness and depth of image can be got wonderfully well in a good carbon print; and, of course, permanency is typified by the platinum papers. Not to put too fine a point on it, oil must offer us something more than mere richness and lastingness if we are to

be expected to abandon our present photographic processes in its favor. Well, that is precisely what oil, as a matter of fact, does; and does unanswerably and triumphantly. Oil printing may never be a popular process in the sense that P.O.P. is popular; but it can metaphorically lay trump cards on the table when invited to play against such competitors as gum and carbon—the printing mediums of the fastidious. To make clear what those trump cards are, it will be necessary to ask ourselves, not what an oil print looks like, but how it is made.

A piece of paper is coated with a film of gelatine (and it will comfort the unhandy to learn that this part of the task is done for him by the manufacturer). The paper, with its gelatine surface, is now immersed in a weak bath of simple bichromate of potash and water for a few minutes, and then hung up to dry. When dry, the paper is placed in the printing-frame in the usual way behind a negative, and a picture—not unlike the weak, lemon-colored image of an undeveloped platinotype—appears rapidly on exposure to light at a window. As soon as the high light details begin to appear (the clouds in a thin sky or the folds of a white dress, for example) the print is removed from the frame and washed in water. It will now be found that those parts of the gelatine which have been exposed to the light absorb no water, while those parts which have not been exposed, absorb water. That is to say, the sky and light portions of the print swell up with the water they have absorbed in the washing, and the landscape portions do not swell up, but remain nearly dry.

The print is now laid face upward on a pad of wet blotting-paper, and dabbed with a brush which has been very lightly charged with a suitable oily paint. At first sight it might seem that the paint would apply itself all over the surface of the paper and make a meaningless smudge. But in practice it does not. On the contrary, the astonished tyro finds his photograph slowly but surely appearing beneath the brush, although the latter is not being applied with any conscious design. "Under his very eyes" the picture builds itself, up, picking out its own detail, rounding off its own outline, in the most fascinating way. Yet the explanation is far from mysterious. The pigment refrains from sticking to the light parts of the picture because those light parts are all swelled up with water—and water

repels oil. It sticks to the dark parts because the dark parts have gathered to themselves no water, and therefore don't repel the oil. Simple, isn't it? Yes; and that is where the resemblance to other great ideas comes in.

Those who have tried the gum-bichromate printing process will remember that the image is invisible; a great disadvantage to the rule-of-thumb worker. The image is made visible by the application of water, or of a porridge of sawdust and water, or of a brush. With these the light portions of the image are rubbed away, the dark portions remaining. The weak point of this system is that once a piece of the image has been rubbed away, it cannot be replaced. It has gone for ever; and if a piece has been rubbed off which ought not to have been rubbed off, there is nothing for the honest photographer to do but to make a fresh print. (I say "the honest photographer" advisedly. The other sort of photographer will repair the hole by hand work.) Herein, then, lies the supreme advantage of the oil picture. It is not created by rubbing away superfluous pigment, but by adding pigment. The image is not produced by the cautious subtraction of non-essentials, but by building up. Bit by bit the picture is added to, on the paper; and as soon as the proper depth has been reached, the worker stops, and his work is done. Moreover, should he by an error add too much pigment to one part of the picture, it can immediately, with a stroke of a clean brush, be removed, and he can start afresh to build a new image. The underlying image on the gelatine remains constant, and is not destroyed when the visible pigment image is wiped off wholly or in part. Indeed, with one sweep of a wet cloth the whole picture can be made to vanish—yet it is still there, though invisible to the eye, and with a fresh brushful of pigment it can without delay be re-created as before. Wherefore it will be seen that the assertion that oil pigment printing is "unlike any other photographic process" really has some considerable grains of truth in it.—*Amateur Photographer*.

* * *

PINHOLES IN NEGATIVES.

The commercial worker or the old and seasoned hand does not view a pinhole or two with any very great degree of consideration. He knows they are sure to occur sometimes, no matter how much care he may take. Not that he takes no precautions to avoid them, for

realizing that prevention is better than cure, he is careful to keep his apparatus and dark-room in such a condition of cleanliness that pinholes are, if not only occasionally seen, at all events, few in number on any one negative.

THE APPARATUS.

The interior of the camera, of whatever type, should be dusted out occasionally and this may be done with a damp cloth or one slightly moistened with glycerine, taking care of course not to leave the instrument in a damp state. Darkslides, changing box, or roll-holder also should be carefully freed from dust particles, for the movement of the shutter, the spool, or the plate in changing is very likely to stir up any dust which may be about. The majority of well-designed and well-made stand-cameras have ventilation apertures at the corners of the focusing screen so that when focusing the air may find ingress or egress. When focusing-magazine instruments are in use, such ventilation is not possible and air finds its way through minute chinks with considerable force, these tiny but powerful current of air stirring up whatever dust may be about.

DUSTING THE PLATE.

This is one of those operations the very careful worker always conscientiously performs. The old hand, usually at all events, has no dusting brush at all, knowing well that dusting a plate may easily put more dust on it than it removes. Blowing the dust off is a course sometimes recommended, but particles of moisture are very likely to be blown from the lips on to the plate. The most effective method is to simply give the edge a smart tap on the bench or shelf, holding the plate at one end and taking care to strike the wooden shelf with the plate meeting its surface at right angles. Any particles of dust which could be removed by means of a brush will be dislodged by this smart knock. But after all, the dust on a plate when taken from the box is practically non-existent.

DUSTING BEFORE DEVELOPMENT.

This is another operation which the practical worker knows to be valueless and therefore never performs. Air bells are much more likely to occur than pinholes during development, and these, due either to previous wetting of the plate or to careless pouring on of the developer, may always be known by their slightly larger size and by their roundness.

THE REMEDIES.

Having suggested some methods for avoiding pinholes, we may turn to the cure of the evil when it occurs. The simplest and possibly the quickest method of all is to use a fine sable brush and some opaque color and touch each pinhole, making it a black or opaque spot instead of a white or transparent one. The transparent spot prints black on the paper and so nothing can be done. The opaque spot prints white which gives the worker a means of, again with brush and color, or with pencil, touching the white until it matches in tone the adjacent color. One of the specially prepared spotting colors may be used, or a cake of vermilion, light red, or other similar opaque colors may be employed. A little should be rubbed upon a porcelain slab until of a fairly thick and creamy consistency. Too thin and watery a mixture will not answer, particularly if the pinhole is an actual hole through the gelatine film, as it often may be. The film absorbs the watery color and the hole is left unfilled, the color forming a ring round it. If, on the other hand, the color is thick, a quite tiny touch may be put on and the color stays where applied. The point only of the brush must be used, and it should be kept at right angles to the surface of the negative.

SPOTTING WITH THE PENCIL.

Where there are a good many small spots it may be more effective to touch them out with a finely pointed retouching pencil. A little retouching medium must be thinly applied to the film surface of the negative, using preferably a fluffless silk rag. After a few minutes, to allow the solvent to almost evaporate, work may be commenced. The pencil, which must be sharpened to a point about an inch in length on a sandpaper block, is held vertically to the negative and placed exactly on the pinhole, being then rotated between the finger and thumb for perhaps a quarter turn. After a little practice it will be found that each pinhole, as soon as touched in this way, disappears as if by magic. At first the point may break occasionally, or sufficient lead may not adhere to the medium-coated film. Patience will, however, remove these difficulties.

PINHOLES IN THOUSANDS.

It sometimes happens that the sky of a negative shows literally thousands of pinholes. Probably there are just as many on other

parts of the picture, but they only show prominently where there is an even tone as in the sky. The larger ones may be touched out by one of the methods given above, but to touch out all is practically impossible. These minute holes may not show if a fairly rough paper is used, and if a smooth or glossy one must be employed, a thin sheet of celluloid may be interposed between the negative and the paper, this being sufficient to destroy the sharpness of the pinhole, yet not enough to seriously impair the definition of the picture. If enlarging from such a negative, the same thing may be effected by slightly, very slightly, throwing the picture out of focus.

WHEN NOT TO "SPOT."

When spotting a negative it is as well to remember that, as George Bernard Shaw says, the hand is often a clumsy tool. Tiny spots may be made far more conspicuous by careless or inept spotting than if left alone. A spot may show far more on the negative than it will on the print, and it is perhaps well for the beginner to do too little spotting at first, trying a print in order to see the result of his work. Brush spotting, using a water-color, may be removed by washing the negative, wiping the surface gently with wet cotton wool, but this must be done all over the film surface, never in parts, or marks will be left. Pencil spotting may be removed by wiping off the retouching medium with either methylated spirit or pure turpentine, one or other being a solvent of most of the retouching media.

—*Photographic News.*

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OUTDOOR PORTRAITS.

The possessor of a camera, as soon as he has mastered the technical matters requisite to the securing of a print (unfortunately, too often before he has done this) begins to experiment in portraiture upon his friends. Discovering the necessity for short exposures, he usually poses his victim out-of-doors. Very satisfactory portraits can be secured outdoors, but some little thought and skill is required to get really good results. In the first place, avoid choosing bushes and brick walls as a background. If a temporary background cannot be erected, and shrubbery is the only material available, it will be advisable to pose the subject as far away from the shrubbery as possible, so as to throw the latter out of focus. A gray blanket or brown rug can be made to answer very well as a background,

care being taken to see that there are no creases in it which will show in the picture.

Posing the subject is one of the great stumbling blocks in the path of the beginner. One's friends are so apt to show a camera conscious expression, and to evince a remarkable woodenness and stolidity in their attitude that it is a sore tax on one's patience. One of the most effective and natural poses can be secured by getting the subject to clasp his or her hands lightly behind the back. Curious as it may seem, very few people can manage their hands properly when posing for a portrait. The attitude suggested is at once free and useful, because it tends to throw the shoulders back and give grace to the figure. If the light is uncontrolled, a flat result is very liable to occur. A head screen or reflector may often be employed with advantage. Neither of these need be very large. A circular head screen about one foot or eighteen inches in diameter can be attached to the end of a rod of suitable length and manipulated so as to cut off any unnecessary top light. The operator, of course, holds the screen above the subject's head when making the exposure, care being taken to see that it does not show in the picture.

A reflector about 3 feet by 18 inches will be quite big enough for most cases where only the face is being depicted. A piece of white cardboard, a white sheet stretched over a frame, or a piece of brown paper white-washed, can be utilized in this connection. When using a reflector, it is important to see that it does not create false lights in the eyes. This may happen if it is placed too close in front of the sitter.

In portraiture very much depends upon the lighting. If this is full and flat on the face there will be an absence of modeling, and the character of the features will be lost. If there is too much top light, heavy shadows are created under the eyes, nostrils, and chin. The best effect is obtained with a side light coming from a point a little above the sitter. Thus, one side of the face is more strongly lighted than the other; but a reflector must be used to light the shadow side almost, but not quite, as brilliantly. This is not a very easy matter in outdoor work; the indoor worker having a distinct advantage in this connection. Still, with a little contrivance, control, and careful watching of the light, very presentable results can be secured. Brilliant sunshine is not favorable to outdoor portraiture. A much better

effect will generally be obtained when the lighting is somewhat soft and diffused. Of course, there are subjects in which we require brilliant sunshine, but as a general rule a diffused light will give a more satisfactory result. It is a good plan to educate oneself in judging the intensity of the light on the subject's face. Careful note should be taken of the visual effect, and the resulting negative compared with the mental note made at the time of exposure.—*Focus*.

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ESTIMATING THE INCREASED EXPOSURE REQUIRED WITH COLOR FILTERS.

In the current issue of the *R.P.S. Journal* appears a communication from the Secretary of the Society on the subject of estimating the increased exposure required with color filters.

This subject ought to have formed part of the demonstration Mr. McIntosh gave before the Society on June 4, but the time at his disposal proved to be too short to allow him to deal with it.

In testing the opacity of the filter it is neither necessary nor desirable to use a colored object, since the presence of color would introduce confusing factors. One or two methods of making such tests are in common use. One is to expose half of a plate without a filter and the other half through a filter upon some half-tone picture in black and white, say upon a platinum print, giving a longer exposure to the second half. The result will confirm the estimate of the opacity of the filter, or show it to be wrong, in which latter case another test must be made.

Mr. McIntosh says:—"The method I recommend is to photograph an evenly illuminated sheet of white paper through a graduated transparency, which is easily made and may be used at any time.

"To make the scale it is convenient to expose a half-plate (not necessarily an orthochromatic plate) upon a sheet of white paper. The shutter of the dark slide should be fully drawn, and a brief exposure, say $1/64$ th of a second given.

"The shutter is pushed home half an inch and a second exposure of the same duration is given. The third section of the plate should receive $1/32$ nd, the fourth $1/16$ th, the fifth $1/8$ th, and so on. When twelve exposures have been made the ratio will be 1 to 2,048. De-

velopment should not be carried too far, in fact, so long as the steps are clearly marked, the thinner the negative the better for the purpose.

"Out of this half-plate we have to cut a piece quarter-plate size, but with its length across the half-plate so that the steps run the long way of the plate, and it is desirable to select that portion of the half-plate which has a clear (or nearly) clear glass strip. We shall have on the width of the quarter-plate six grades, with a ratio of 1 to 32, which is amply sufficient.

"This scale is placed in a quarter-plate dark slide with the glass side towards the lens; a plate of the brand with which the filter is to be used is then placed face down on the scale. The dark slide being placed in the camera, the lens is directed to the sheet of white paper. The shutter of the slide is drawn, say three-quarters of an inch, and an exposure is given without the filter; probably one second in a good light with $f/8$ will be sufficient. The shutter must then be closed and the dark slide removed from the camera. A slip of blackened cardboard has to be fixed in the reversing back of the camera in such a way as to shield the section of the plate just exposed. The dark slide is returned, the filter placed in position, and the shutter being drawn a quarter of an inch or so at a time, a series of exposures is given to the plate. Each exposure must be the same as that given without the filter (not multiples of the exposure as when the scale was being made). The last exposed section of the plate will have had one unit of exposure, and the other sections 2, 3, 4, 5, 6, and so on.

"When a print is being made from this negative, the section exposed without the filter is compared with those given through the filter, and it is a simple matter to decide how many times exposure the filter requires.

"It will be obvious that the tests may be made without the scale, and for all ordinary purposes the results will be accurate enough, but it must be remembered that the filter may have a considerable effect on the gradation. A violet filter, as used in three-color work, for example, may reduce contrasts, and an orange or red filter may increase them. If such should be the case, the use of the scale will indicate it, and the exposures may be shortened or lengthened as seems desirable."

—*Photographic News*.

Items of Interest

THE CENTURY CAMERA DIVISION of the Eastman Kodak Co., ever alert to pay attention to the smallest detail that will help the photographer, have brought out something truly excellent in their Century Negative Pencil and Century Photo Spotting Pencil.

The Negative Pencil is soft enough to mark on your glass negative and is mighty useful in working in your backgrounds, deep shadows, etc.

The Spotting Pencil is a decided advance over the method of spotting the photograph with India ink or moist color. These pencils may be had from your nearest dealer.

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THE 1908—1909 CATALOGUE of Geo. Murphy, Inc., 57 East 9th street, New York City, is a fine one. It well shows the care and attention given to it during its months of preparation. Nearly 300 pages, with more than double that number of illustration, it will enable you to fit yourself out with practically anything and everything in the photographic line. A copy will be mailed by Geo. Murphy, Inc., on receipt of ten cents in stamps to cover postage.

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AT THE NATIONAL CONVENTION, through the efforts of the C. P. Goerz American Optical Co., a magnificent group photograph was shown. This picture, a flashlight, made by Drucker & Co., of New York, entitled the "Four Hundred of New York," was taken in the gold banquet room of the Waldorf-Astoria, at the annual banquet of the Playground Association of America. This is an association having among its members many of the leading society people of the East. At the dinner in question the Duchess of Marlborough and Mrs. Humphry Ward the novelist were the guests of honor. Each of the four hundred faces shown is distinct and clear, showing the wonderful covering power of the Goerz lens.

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THE EIGHTH EDITION OF "HAMMER'S LITTLE

BOOK."—A short talk on Negative Making comes to us like the visit of an old friend, always useful, and ever ready to help us with its handy information. This new edition contains a number of new formulas on tank development, etc. It will be well worth your time to sit down and write the Hammer Dry Plate Co., St. Louis, Mo., for a copy. It is free for the asking.

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THE EASTMAN KODAK Co. have spared no pains to make their Kodak Photographic Advertising Contest of an exceptionally high order. After careful consideration a jury has been obtained that is composed of men of the foremost rank in their respective lines of work. It is composed of Mr. A. F. Bradley, of New York City, president of the Professional Photographic Society of New York; Mr. Elias Goldensky, of Philadelphia, a gentleman whose ability as an eminent photographer has brought him an international reputation; J. R. Mix, advertising manager of *Scribner's Magazine*; Mr. Robert Frothingham, advertising manager of *Everybody's*, and Mr. H. S. Houston, advertising manager for the *World's Work* and *Country Life in America*.

There will certainly be great honor in having your work passed on by judges so well fitted to note both the technical and advertising value of the prints entered. Such an array of names cannot but inspire confidence in everyone that the best prints will be the winners, with bias and favor shown to no one. Remember the contest closes October 1st. The prizes are worthy of the best efforts of all photographers. Particulars of the contest appeared in our February issue, page 63. A copy of these conditions may be obtained by addressing the Advertising Department, Eastman Kodak Co., Rochester, N. Y.

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DIE ENTWICKLUNG DER PHOTOGRAPHISCHEN BROMSILBER. — Gelatineplate bei zweifelhaft

richtiger Exposition, by A. F. von Guebl, 3rd edition, 1907, published by Wilhelm Knapp, Halle a. S. Germany, price, Mk. 2.40.

This is undoubtedly the most valuable book ever written on the theory and practice of development. It is to be regretted that it has never been translated into English. The title really does not indicate the more important part of the book, but refers to the control in development of unknown exposures. The earlier editions were of inestimable value to the reviewer in his early experiments with developers.

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ANLEITUNG ZUR MIKROPHOTOGRAPHE, by Dr. R. Neuhauss, 2nd edition, six illustrations, 1908, published by Wilhelm Knapp, Halle a. S. Germany, price, Mk. 1.0.

Since the appearance of the first edition (1894), the photographing of microscopic objects has made considerable progress and this has been embodied in this new edition. Among the new things may be mentioned Apochromats, ultra-violet light, and instantaneous exposure.

LES CORRECTIFS DU DEVELOPMENT, by E. Coustet, 1908, published by Gauthier-Villars, Paris, France, 1 fr. 75 cents.

The book treats of development, its control and restrictions, including rapid developers, developing in ordinary light, and automatic development, but the principal part is on intensifying and reducing. Practically all the known methods are given. Also which one to use in order to obtain the best results according to the faults we wish to correct.

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THE MANCHESTER AMATEUR PHOTOGRAPHIC SOCIETY, in connection with the Liverpool Amateur Photographic Association. The Northern Photographic Exhibition, International and open, will be held in the City Art Gallery, Manchester, England, 6th to 27th January, 1909. The exhibition will be open to all amateurs and professionals alike, and will be divided into the following sections:

1. Pictorial Photographs.
2. Pictorial Photographs in color.
3. Pictorial Lantern slides.
4. Color Slides, Autochromes, etc.

Fifteen awards will be at the disposal of the judge, and will be in the form of a Decorative Plaque, about 9 by 5 inches, specially designed in competition at the Manchester School of Art.

Judge, J. C. S. Mummery, A.R.I.B.A., F.R.P. S., president Royal Photographic Society.

Chairman of Exhibition Committee, Dr. A. T. Lakin.

Hon. Exhibition Secretary, S.L. Coulthurst, Broad Oak Road, Worsley, Manchester, and Manchester Amateur Photographic Society Rooms, 57 Market street, Manchester, England.

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AT THE RECENT ELECTION for the officers of the Salon Club, the following were duly elected to fill the various offices:

Director, Wm. H. Zerbe, 395 Spruce street, Richmond Hill, L. I.; Secretary, W. & G. Parrish, 5607 Cabanne avenue, St. Louis, Mo.; Salon Committee, C. F. Potter, 620 Nicollet avenue, Minneapolis, Minn; John Chislett, Crown Hill, Indianapolis, Ind.; Sara W. Holm, 397 N. State street, Chicago, Ill.

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HYP0 IN THE DEVELOPER.—In discussing a new brand of development paper, the *Photographische Chronik* mentions that it may be developed with a solution containing hypo. This interesting modification of the developer finds very little application nowadays, and it is worthy of far more consideration. The addition of the hypo in this, as in most other instances, gives considerable hardness and density. Four hundred parts of the normal developer are mixed with 100 parts of 10 per cent. bromide solution and to this mixture are added five parts of 25 per cent. hypo solution. It is thus seen that only an extremely small quantity of hypo is necessary, but what strikes us as worthy of particular notice is the very large addition of bromide which is recommended. The use of hypo in the developer for dry-plate work is practically impossible, as traces of a solvent of silver bromide tend to cause dichroic fog, as was proved experimentally some time past by Messrs. Lumière and Seyewetz. It was, however, sometimes recommended with the old ferrous oxalate developer. But for use with bromide or gas-light papers it would be quite possible to keep handy a solution containing potassium bromide and hypo in the proportions above mentioned (8.1), and in cases where a negative was exceptionally soft or flat, the addition of a small quantity of the solution might prove helpful.

Classified Advertisements

Advertisements for insertion under this heading will be charged for at the rate of 25c a line, about eight words to the line. Cash must accompany copy in all cases.

Copy for advertisements must be received at office one week in advance of the day of publication. Advertisers receive a copy of the journal free to certify the correctness of the insertion.

Rates for display advertising sent on application.

NOT IN THE TRUST.

We sell CAMERAS of every description

Seneca, Korona, and any Camera made by the TRUST can be purchased at a discount.

SALE AGENTS for ARTURA, CYKO, ARGO, and SELTONA PAPERS.

New York Camera Exchange, 114 Fulton Street.
Write for Catalogue.

GET A DAVIS DAYLIGHT DEVELOPING MACHINE for plates, and be independent of a dark room. A practical machine for practical use by practical photographers. Among the many points of superiority over all other plate developing devices may be mentioned the following: 1st—It is so simple to operate that it may be understood on sight. 2nd—It is light and compact, the 4 x 5 size measuring only 5½ x 6¾ x 7½ inches, and all space inside may be used for packing materials when not in use—a great convenience when traveling. 3rd—No changing bag or special plate holder is required, any face loading holder having a spring or spring-bar to hold plate can be used. 4th—Plate can be transferred from holder to developing tray in less than fifteen seconds by moving two simple catches on outside of machine. 5th—It is absolutely independent of a dark room—can be used in any light without danger of fogging the plate. 6th—There is nothing to break or get out of order—it is made to stand use. Price, 4 x 5 size, \$5.00; 5 x 7 size, \$6.00. Full instructions for use with each machine. Order from your dealer. If he cannot supply you, the machine will be sent prepaid in United States on receipt of price. DAVIS MANUFACTURING COMPANY, P. O. Box 99, Orient, N. Y.

FOR RENT — Up-to-date Photograph gallery, S. W. Corner of Lexington Avenue and 105th Street, New York City. Inquire 138½ East 105th Street, N. Y.

CARBON PRINTER WANTED — Must know double transfer. Send specimens, which will be returned. Address, F. GUTEKUNST, 712 Arch Street, Philadelphia, Pa.

STEREOSCOPE Negative and glass stereos bought by A. FUHRMANN, Berlin, W. Passage, Germany. Fabrik v. Kaiser-Panorama, etc.

As The PHOTOGRAPHIC TIMES goes out of print on publication, send your renewal subscription promptly if you want to have a complete file.

FOR SALE — Studio. Best location and cheapest rent in Chicago. In heart of the business center. A gold mine for a hustler. Established 26 years. Wish to retire. Sacrifice at \$1500. For particulars, address J. SCOTT JOHNSON, 5825 Michigan Ave., Chicago, Ill.

HAVE YOUR LOCAL VIEWS MADE INTO POST CARDS

AND SOUVENIR ALBUMS
FINEST AMERICAN MADE

The Albertype Co., Brooklyn, N. Y.

Important Notice—Change of Price

On and after October 1st, 1908, the subscription price of THE PHOTOGRAPHIC TIMES will be ONE DOLLAR AND FIFTY CENTS a year. Single copies Fifteen Cents. Foreign subscriptions TWO DOLLARS a year. Subscriptions sent in before October 1st, will be entered at the old price. **Send in your renewal now.**

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

HOW YOU MAY KNOW.

There are two equally effective methods for insuring the use of pure chemicals.

The first is by a laboratory test, entailing proper re-agents and apparatus and a knowledge of chemistry, usually far beyond the average amateur. It is true that a number of so-called simple tests for the determination of quality have been published, but most of them compel the purchase of other chemicals for the purpose, equalling or exceeding the cost of the particular chemical you wish to test. Here is one of them: "Good and bad samples of sodium sulphite can easily be distinguished from each other by dissolving an equal quantity of each in two measures—say 20 grains—and adding to each solution an excess of barium chloride solution. This would throw down precipitates of barium sulphite and sulphate, the latter being in very small proportions if the sodium salt be pure; on adding hydrochloric acid to each solution, the barium sulphite would dissolve, but the sulphate would remain. If more barium sulphate remained in one solution than in the other, the former would have contained the worst sample of sodium sulphite."

All very good, *but supposing both lots of the sulphite you had on hand, and had purchased to use, proved impure, and you had a lot of film or plates on hand that you wanted to develop right away, what good would your test do you?*

Here is the second and only true practical method for the small consumer. Have the testing done for you before you purchase—then you *know* exactly what you are working with. How can you make sure that the tested chemicals you buy *are* tested and *are* pure? Very simple—Have it done by some one whose

interest in your securing good results is equal to or greater than your own. That *one* is the manufacturer of the goods with which your chemicals are to be used. For you the procuring of pure, tested chemicals is a very simple matter. See that this trade-mark is on the package:



TAKE IT WITH YOU.

How about a dark room on your vacation trip? Hotel or free dark rooms are sometimes a delusion and a snare—if they are bad, you can't use them, if they are good, they are pretty sure to be crowded.

Turning your bed-room into a dark room in the evening isn't just quite the thing, and employing your host's bath room for the purpose sometimes has a tendency to strain friendly relations.

Wait till you get home to develop—that's taking chances.

The way to be sure you have got all your pictures as you want them is to develop your film on the spot—then if there has been any little slip-up, it's an easy matter to make a duplicate exposure—and there's a heap of satisfaction in having your summer pictures complete.

Take your dark room with you—just slip a Kodak Film Tank into a corner of your suit case—then you can snap your fingers at all adverse conditions. Develop any time you like, out under the shade of the big tree—anywhere at all—any time—and results, the very best.

If you are an expert you know the quality of Kodak Film Tank results. If a novice all the necessary experience is provided in the Tank.

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

HOW TO KEEP YOUR PROMISE.

"Let us hear from you on your vacation trip"—"Surely, every day," you glibly promise—yet the days are so filled with vacation pleasures that time for letter writing slips by before you know it, and soon you are a candidate for the Ananias Club.

Here is an easy way out—not only easy but pleasant for the folks at home.

After the Kodak, Tank and film have gone into the bag, just fill that extra corner with a printing frame and some Eastman Ferro-Prussiate Post Cards—the rest is easy—or if a bit more ambitious slip in some Eastman Sepia Cards, and a little box of Hypo, then you can vary the blue cards with the Sepia toned ones.

Don't need to write much, the pictures will tell the story, and in a much happier and more personal manner than any purchased card could do.

QUALITY AND SIMPLICITY.

Have you ever stopped to consider how many minds are concentrated on making picture taking the Kodak way simple, sure and easy. How in all the immense Kodak factories the ruling ideas are quality and simplicity—in the designing and chemicals departments, simplify and improve—in the workshops, the most rigid inspection imaginable—every thing tested, gauged and measured.

In the camera inspection department every camera from the little one dollar Brownie up to the most expensive Kodak produced is tested for correct focus with a magnifying glass.

Every feature undergoes the same keen scrutiny, every screw must be placed just so, every leather covering

must be perfect, each mechanical adjustment must work with absolute accuracy.

In the film making department we do practically everything but grow our own cotton for the film base. To insure purity and uniformity, we nitrate our own cotton—we even make the acids for this purpose.

And it is test, test, test, no half way measures—no "I guess it will do," nothing but perfect film can be spooled.

We look after the smallest item making for further improvement in quality or simplicity. Remember how it used to be a little difficult to remove the gummed sticker from the film spool when loading—even that bothered us—now the end of the black paper is turned under for half an inch, and off comes the gummed band just as easy.

Protection against heat and moisture after the film gets into your hands is provided—each film being wrapped in paraffined paper and tin foil—costs us money but makes good results the surer.

For years the dark room seemed an inseparable part of camera picture making—yet we found a most successful way to get you out of it—made it daylight all the way—not only more comfort but better results.

Kodak stands not for complex apparatus and processes for the expert—not for makeshift toys, but for the best results the simplest way. Kodak stands for quality and simplicity. "Kodak" on any photographic product means the best that can be made for the lowest price consistent with quality.

The Kodak Portrait Attachment

splendid not only for portraits, but for photographing all small objects at close range.

The price, 50 cents.

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Printing them is easier than writing letters, is more interesting to you and will delight the friends at home.

Eight Speeds and Surfaces.

20 Cents per Dozen at Your Dealers.

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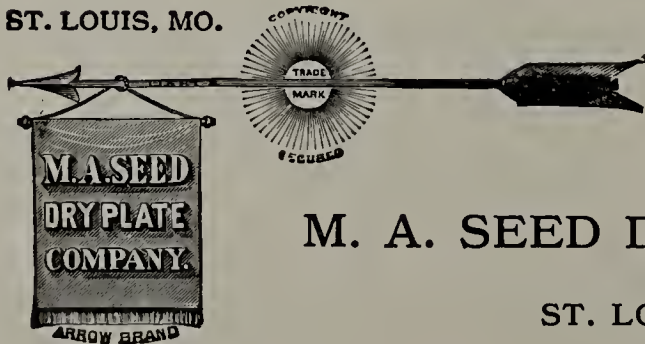
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know by those who
know—

Seed stands alone
in uniformity and reli-
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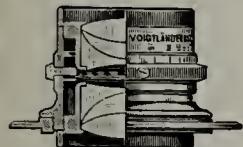
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A SWELL PROPOSITION FOR SEPIA PRINTS.



It is illustrated on page 30 of our 1908 Catalogue, and only one of many beautiful styles that we have to offer for any kind of tone print you are making.

THE PORTE

has a beautiful black enamel cover, cob-webbed pattern. The insert is a beautiful shade of Sepia Tone. No insert except a delicate monogram in the upper right hand corner. We furnish two different colored inserts with this so that you can mount some odd sized prints and get some **Very Beautiful and Original Effects**. We are making practically the same thing for black and white platinum under the name of

THE OTTOMAN

the insert being cream white ripple and the loose inserts in light and dark gray. These two styles are right out of the ordinary—different—artistic. We will mail samples of both on receipt of five 2 cent stamps.

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The Leading Card Novelty House of America.

The OTTOMAN is listed on page 10 of our 1908 Catalogue

For delicate fleecy clouds,
for flower studies, for the
variegated coloring of
summer landscapes—use

Standard Polychrome

A color sensitive plate that is
remarkable for speed, latitude and
soft working qualities.

All Dealers.

Standard Dry Plate Division,
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Do You Have a GOERZ LENS On Your Kodak ?

THE Amateur Photographer who wishes to excel in his work will fit his Kodak with a CELEBRATED GOERZ LENS.

Pictures made with these lenses are as vivid, as full of atmosphere and as unforgettable as a painting by Corot. It is the inimitable photographs obtained by Amateurs and Professionals alike that have made the Goerz DAGOR and CELOR LENS the world's foremost photographic instruments.

We shall be pleased to send on request catalogue describing our lenses and shutter.

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The Best, the most Reliable, and the Cheapest.

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Series II, F 6

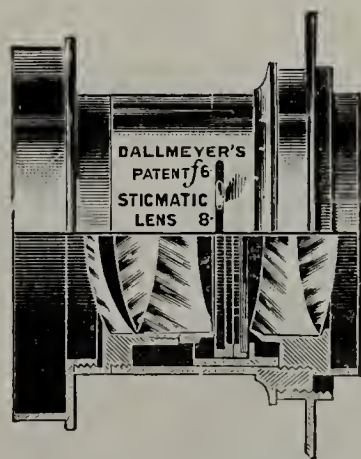
Four Lenses in One

Three Regular Lenses, each of different focal length, and a Wide Angle Lens, suitable for instantaneous work, Landscapes, Groups, Large Heads, and Photo Engraving.

They are about $33 \frac{1}{3}\%$ lower in price than other lenses of similar character.

We are sole United States Agents for Thornton-Pickard Shutters and Dallmeyer Lenses. Ask your dealer.

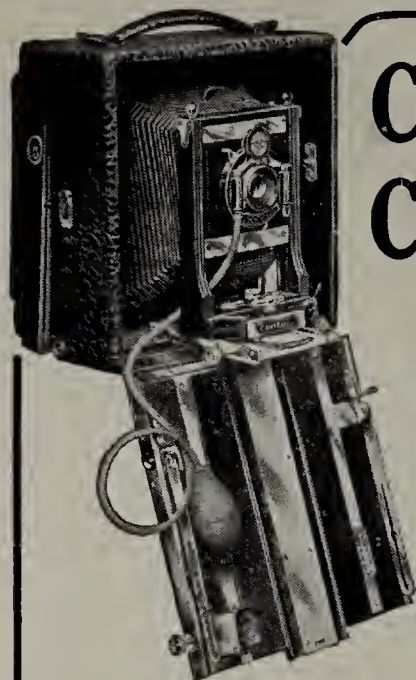
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¶ The camera that makes the best pictures is the **Century Camera.**

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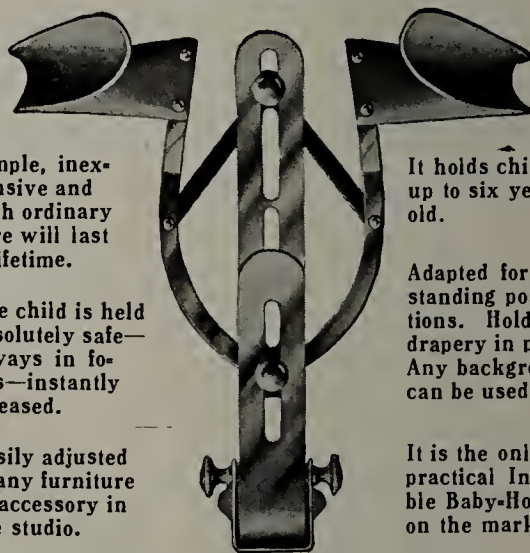
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The child is held absolutely safe—always in focus—instantly released.

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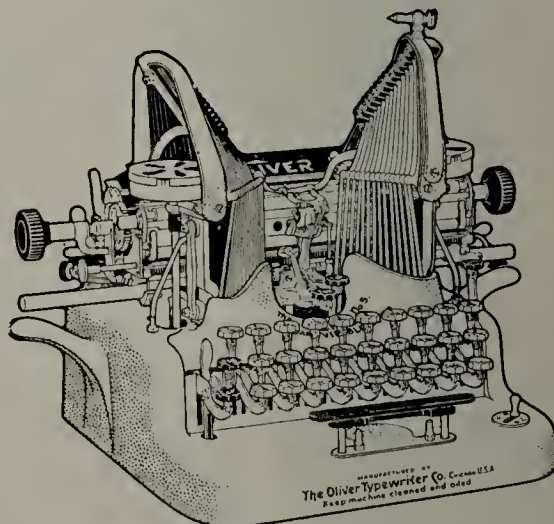
It holds children up to six years old.

Adapted for standing positions. Holds the drapery in place. Any background can be used.

It is the only practical Invisible Baby-Holder on the market.

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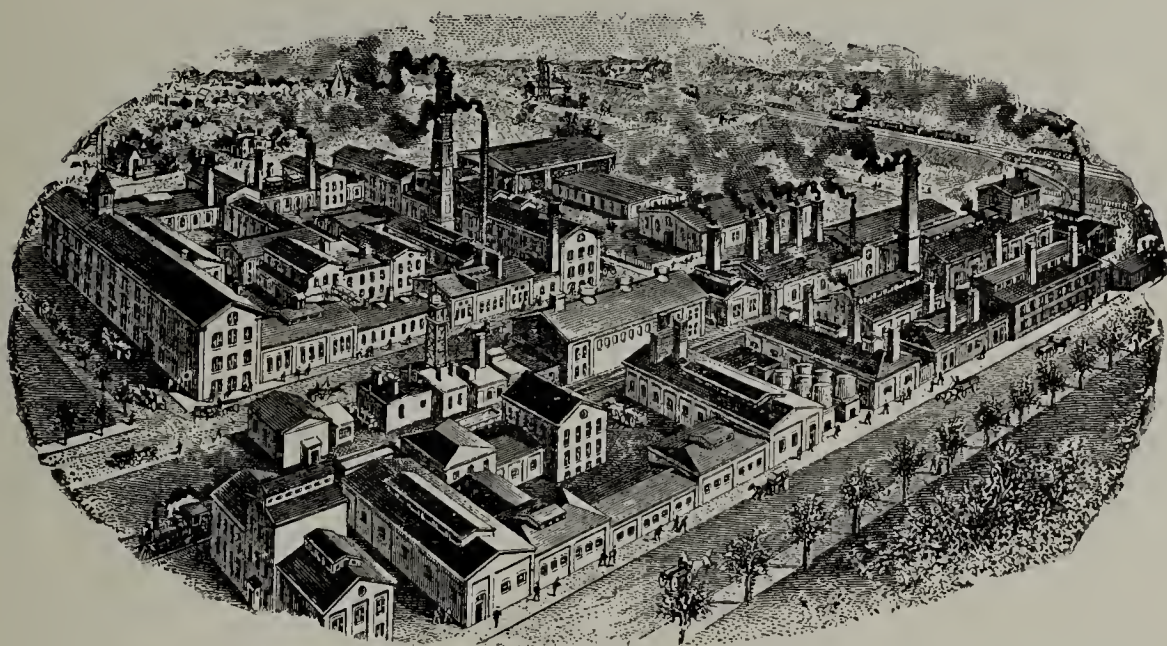
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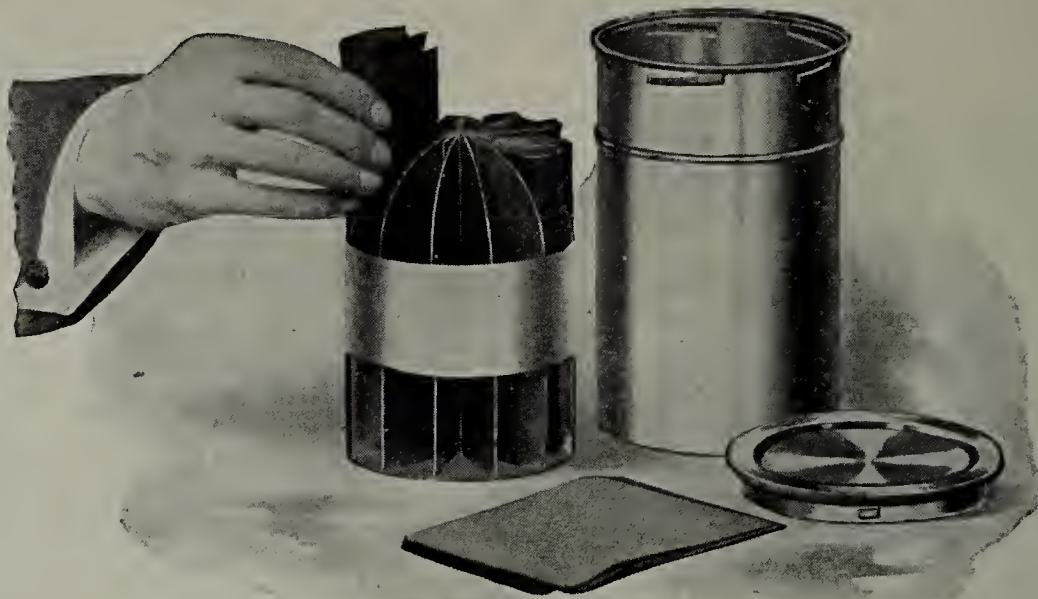
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The newest and most important improvement of the year, for those who wish to develop their own films.

For it automatically develops Film Pack Films all together, as well as the most experienced photographer could develop them singly in the tray.

No skill or attention on your part, necessary. Just load the films in receiver—drop into tank—put on cover and set aside in any light. At the expiration of given time, remove films and place in fixing bath. All will be found developed to their full values.

It's invaluable to the beginner, as it places him on the same plane, in development, as the most advanced photographer.

It saves time and bother for dealers and others who do developing for amateurs.

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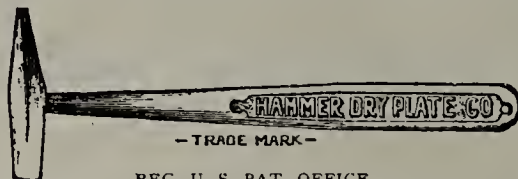
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39 Union Square, New York

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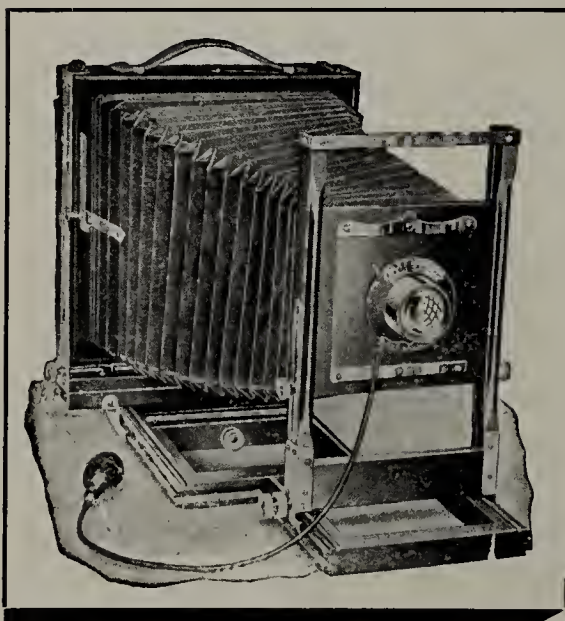
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New Improved View Camera

Showing operation of New Patented Sliding Front and Bellows Support.

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After ten days' trial—if they don't suit.

That's the way we show our confidence in them. Backed by broad basic patents, SENECA View Cameras are instruments of absolute rigidity, of generous focal capacity, and of unequalled photographic attainments.

These are the Cameras the TRUST doesn't dare discriminate against. Better send for our CATALOGUE and offer, to-day—don't you think so?

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PLATES.—**Isonon**; a specially heavy coated color sensitive plate, easy to use, which compensates for errors of exposure and minimizes halation. Particularly suited for high grade portraiture and commercial work. Costs a trifle more, BUT—

Commercial; a slow plate for all commercial work where brilliancy and vigor with full detail are required. Price same as Banner X.

Red Label Lantern Slide Plates exactly fill the requirements when the maximum of contrast without the sacrifice of values is needed. Price same as our well known Green Label Plates.

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Convertible Anastigmat

The Perfect American Lens

F=6.8



Consider the advantage a Series II Turner-Reich Lens offers as compared with a symmetrical anastigmat. As a doublet, the Turner-Reich gives absolutely the best results attained by any lens and it separates into two single combinations of unequal focal lengths, each a perfect lens in itself, with which a picture can be taken in three proportions from one viewpoint.

A convertible anastigmat does everything from wide angle to telephoto work, time or high-speed instantaneous exposures, indoors and out.

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HIGGINS' PHOTO MOUNTER

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(Excellent novel brush with each jar.)

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A thoroughly scientific paste for fine Photography and Artistic work.

WILL NOT SPOT because it **IS ABSOLUTELY NEUTRAL.**

It will not wrinkle the most delicate paper or curl the mounted pictures, and the particles are so fine that every atom sticks.

It is smooth as a cold cream, and stays in perfect condition till entirely used up.

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With 49 full-page plates

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Series A
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F. 5.**

THIS is a moderate priced portrait and group lens listing at from \$15 to \$50, and its optical and mechanical construction is first-class in every respect. It has been on the market for over two years, and from the prints and testimonials that have been sent us we think that many Photographers consider it equal to some lenses selling at a much higher price.

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The result is an Aristo print in
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